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COMMONWEALTH
OF
VIRGINIA

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

ANNUAL REPORT

FOR YEAR 1981

Robert F. Beard, Jr., Commissioner
DEPARTMENT OF LABOR AND INDUSTRY
Richmond, Virginia

Eighty-fourth Annual Report

CALENDAR YEAR ENDING DECEMBER 31, 1981

DEPARTMENT OF LABOR AND INDUSTRY

Robert F. Beard, Jr.	Commissioner
Clayton P. Deane	Assistant Commissioner
Janice L. Thomas	Chief Administrator of Occupational Safety

Divisions of the Department

Division of Apprenticeship Training
Robert S. Baumgardner, Director

Division of Boiler and Pressure Vessel Safety
Vernon E. Doss, Chief

Division of Construction Safety
Charles G. Wicker, Director

Division of Field Office Services
Administration

Division of Industrial Safety
Elliott A. Scruggs, Director

Division of Mines and Quarries
McLynn Sharpe, Chief

Division of Voluntary Safety Compliance and Training
Michael Rodgers, Director

Division of Research and Statistics
Texa B. Thurston, Director

Division of State Labor Law Administration
William K. Turpin, Director

VIRGINIA
SIC SEMPER TYRANNIS

Commonwealth of Virginia

DEPARTMENT OF LABOR AND INDUSTRY
205 North Fourth Street
P. O. Box 12064
Richmond, Virginia 23241
804-786-2376

ROBERT F. BEARD, JR.
COMMISSIONER

CLAYTON P. DEANE
ASSISTANT COMMISSIONER

June 30, 1982

Honorable Charles S. Robb
Governor of Virginia
Richmond, Virginia

Dear Governor Robb:

Pursuant to the law creating the Department of Labor and Industry, as amended by Acts of Assembly, 1927, Chapter 33, I have the honor to submit herewith the eighty-fourth Annual Report of the Department for the calendar year ending December 31, 1981.

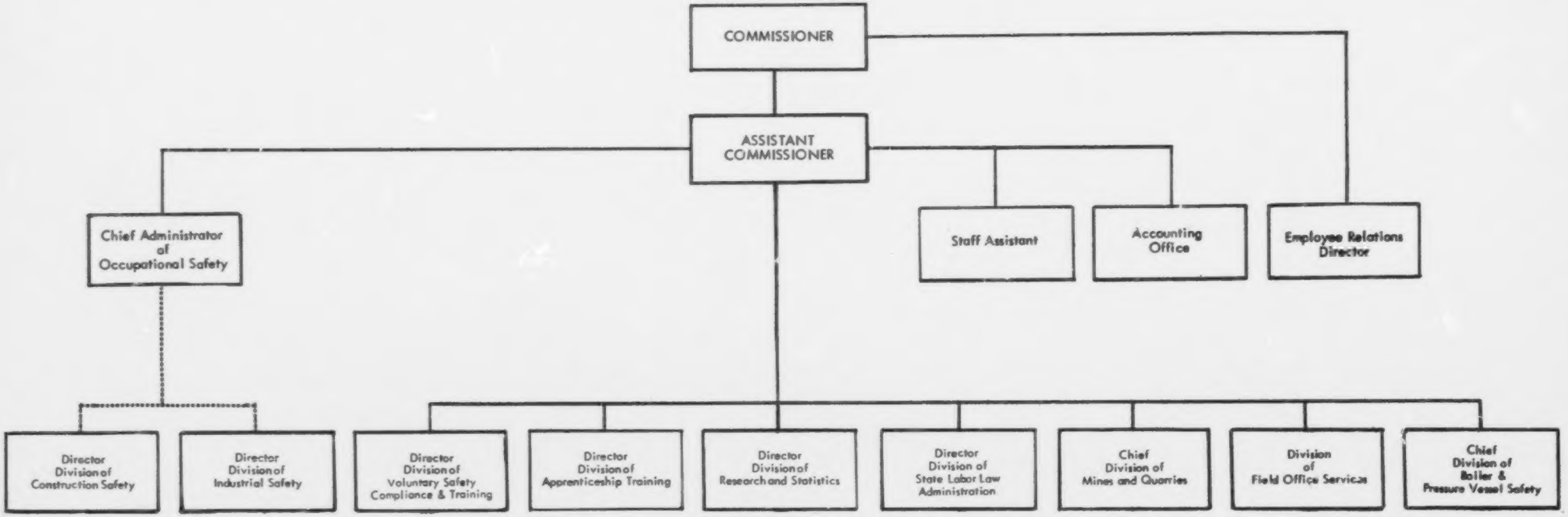
Respectfully submitted,

Robert F Beard Jr.

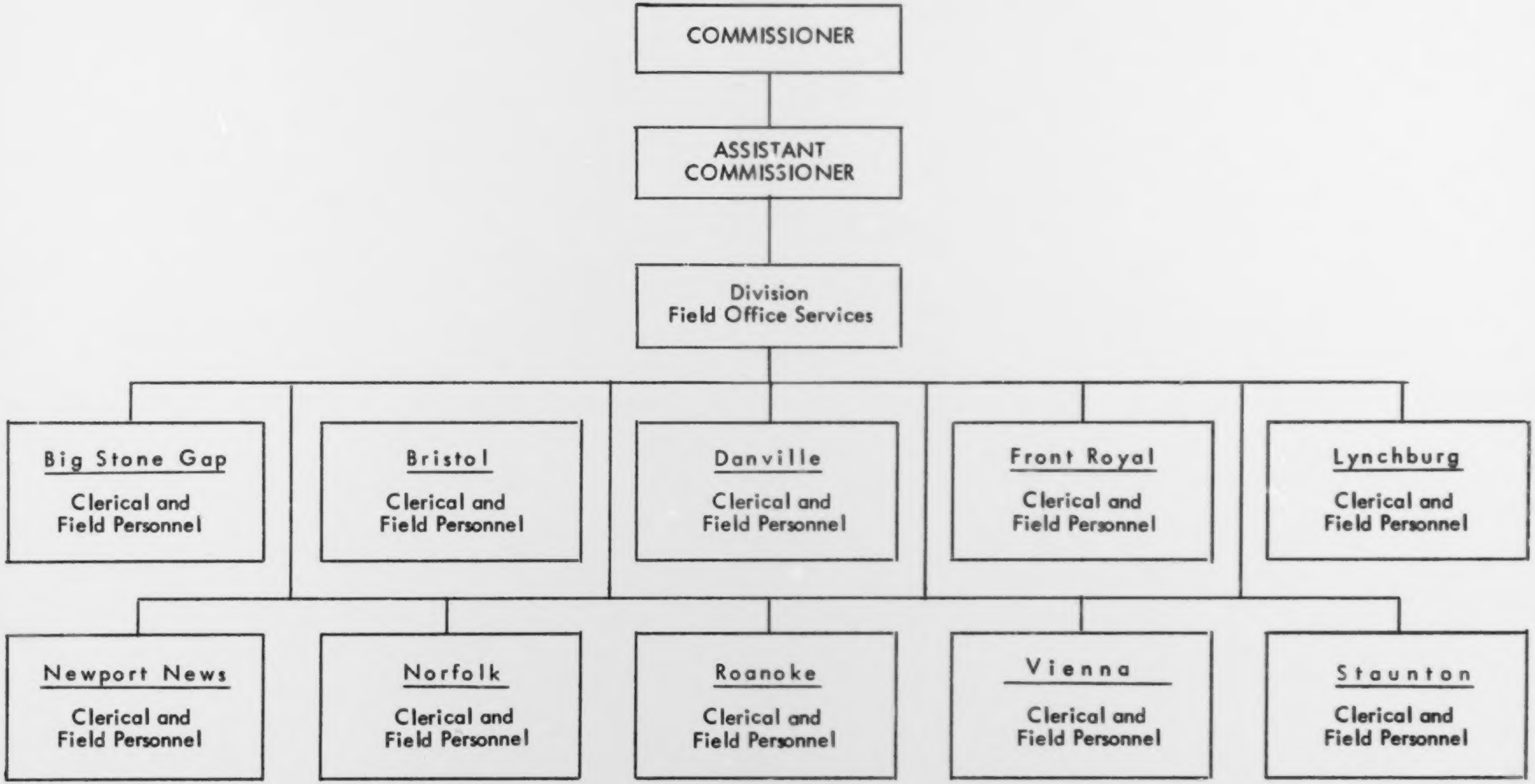
Robert F. Beard, Jr.
Commissioner

RFB,Jr./dem

ORGANIZATION CHART
VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY


COMMISSIONER
ASSISTANT COMMISSIONER
Chief Administrator of Occupational Safety
Staff Assistant
Accounting Office
Employee Relations Director
Director Division of Construction Safety
Director Division of Industrial Safety
Director Division of Voluntary Safety Compliance & Training
Director Division of Apprenticeship Training
Director Division of Research and Statistics
Director Division of State Labor Law Administration
Chief Division of Mines and Quarries
Division of Field Office Services
Chief Division of Boiler & Pressure Vessel Safety

ORGANIZATION CHART
FIELD OFFICE SERVICES


COMMISSIONER
ASSISTANT COMMISSIONER
Division Field Office Services
Big Stone Gap
Clerical and Field Personnel
Bristol
Clerical and Field Personnel
Danville
Clerical and Field Personnel
Front Royal
Clerical and Field Personnel
Lynchburg
Clerical and Field Personnel
Newport News
Clerical and Field Personnel
Norfolk
Clerical and Field Personnel
Roanoke
Clerical and Field Personnel
Vienna
Clerical and Field Personnel
Staunton
Clerical and Field Personnel

Note: All offices will be responsible for taking and referring business calls to any representative not assigned to the office but working the area.

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

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ORGANIZATION AND FUNCTIONS OF THE DEPARTMENT

The Department of Labor and Industry, originally known as the Bureau of Labor and Industrial Statistics, was created by Act of the Legislature in 1898. With the enactment of the Reorganization Act of 1927, it was given the status of a regular administrative agency of the State Government and its name changed to the Department of Labor and Industry. (Section 40-1, Code of Virginia, 1950, as amended, 1958, 1962, 1964, 1966, and 1970).

By the Act creating the Department of Labor and Industry, the Commissioner of Labor and Industry and his assistants are specifically charged with the following general duties:

1. To compile and publish statistics concerning labor and industry in the State and to report in writing to the Governor annually concerning the work of the Department with such other information and with such recommendations as the Commissioner may deem proper.

2. To visit and inspect all business establishments, excavations, demolitions and construction sites, as defined in Title 40.1 and 45.1 of the Code of Virginia, where goods, wares and merchandise are manufactured, purchased and sold, at wholesale or retail, and to secure the enforcement of all laws, rules and regulations relating to the inspection of aforementioned establishments and to prosecute all violations thereof.

3. The Commissioner shall have power to take and preserve testimony, examine witnesses, administer oaths and, under proper restriction, enter any public institution of the State, any business establishment, mine or quarry, as defined in Title 40.1 and 45.1 of the Code of Virginia and interrogate any person employed therein or connected therewith or the proper officer of a corporation, or file a written or printed list of interrogatories and require full and complete answers to the same to be returned under oath within thirty (30) days of the receipt of such list of questions.

4. The Commissioner is responsible for the formulation of policies and the general supervision of all activities of the Department. He shall have the authority to appoint such assistants as may be necessary to carry out the objects and purposes of this Department. This office, through the press, radio, conferences and other means of dissemination of information, keeps employers, workers, and the public informed of the labor laws, the general activities of the Department, and the need for legislation for improving conditions of work in industry. The Commissioner is also an ex-officio member of the Virginia Apprenticeship Council and the Safety and Health Codes Commission.

5. The Commissioner is charged by statute with the duty of mediating and conciliating labor disputes affecting certain public utilities. The Commissioner also, personally, and through the Department's personnel, attempts to maintain satisfactory and peaceful relations between employers and employees; and while he is not charged with the responsibility by statue to mediate disputes, other than those affecting certain public utilities, the services of his office have been rendered to many employers and employees, who have requested the services of the Department to assist them in reaching a mutual agreement of their differences in a labor dispute.

6. The 1962 General Assembly of Virginia provided for the establishment of a Safety Codes Commission to be appointed by the Governor which was composed of five members. The 1970 General Assembly of Virginia increased the size of the Safety Codes Commission by two additional members to be appointed by the Governor. In 1972, legislation enacted by the General Assembly of Virginia changed the name from Safety Codes Commission to Safety and Health Codes Commission and provided for the Commissioner of Health to be an ex-officio member. The Commission shall study and investigate all phases of safety in business establishments applicable to Title 40.1 and Title 45.1 of the Code of Virginia.

7. The 1970 General Assembly of Virginia recodified Title 40 to Title 40.1 and Title 45 to Title 45.1.

VIRGINIA PUBLIC UTILITY LABOR RELATIONS ACT

The Virginia Public Utility Labor Relations Act, as amended by the General Assembly, effective April 7, 1952, designates the Department of Labor and Industry as the State agency established to mediate and conciliate labor disputes. It requires notices of disputes between certain public utilities and their employees and imposes upon the Commissioner of Labor and Industry, or his designated agent, certain duties in connection therewith relating to labor disputes affecting the operation of certain public utilities.

The Act provides that the utility or the collective bargaining agent, recognized by the utility and its employees, shall not terminate or modify such contract until the party desiring such termination or modification serves written notice upon the Department of Labor and Industry of the proposed termination or modification at least thirty (30) days prior to the expiration date thereof or in the event such contract contains no expiration date, at least thirty (30) days prior to the date it is proposed to make such termination or modification. Where there is no collective bargaining contract in effect, the same procedure shall be followed by the utility and its employees or designated representatives or any labor organization or association attempting to organize employees in work affecting the utility.

Upon receipt of any such notices, the Commissioner of Labor and Industry is charged with the responsibility of notifying the Governor and informing him of the nature of the dispute. If the Governor deems it necessary, the Commissioner, or his designated agent, shall offer to meet and confer with the parties in interest and undertake to mediate and conciliate their differences to the extent of the mediation and conciliation by State agencies contemplated by the National Labor Relations Act or similar Federal legislation. In the event Federal legislation does not apply and if the Governor deems it advisable, it shall be the duty of the utility and its employees, or designated representative, to meet and confer with the Commissioner, or his agent, at a time and place designated by the Commissioner for mediating and conciliating their differences.

The Commissioner shall keep the Governor fully informed of negotiations between the utility and its employees and shall report as soon as practical if a strike or lockout appears to be probable in any such dispute, or if a strike or lockout begins, whether the continuation thereof is probable.

The Commissioner of Labor and Industry, or his agent, shall have the right of entry upon the property of a utility.

After all means of mediation and conciliation have been exercised under this Act and a stoppage of work is certain, the Governor, under the new Seizure Act, may, if he deems it necessary, seize and operate a public utility.

Mediation and conciliation service under the Public Utility Labor Relations Act continues even though it becomes necessary for State seizure under the Public Utility Seizure Act.

The Commissioner of Labor and Industry was not required to attend any conferences in 1981 under the amended Virginia Public Utility Labor Relations Act. Nine (9) notices of negotiations were received during the year, and seven (7) of which were Electric Power utilities and two (2) of which were Gas Distribution utilities. All nine (9) were settled.

DIVISION OF

BOILER AND PRESSURE VESSEL SAFETY

The Division is responsible for enforcing the provisions of the Boiler and Pressure Vessel Safety Act as set forth in Chapter 3.1 of Title 40.1 of the Code of Virginia. The objective is to protect human life and property from unsafe or dangerous construction, installation, inspection, operation, maintenance, and repair of boilers and pressure vessels in the State.

The inspection of boiler and pressure vessel equipment and their installation is the primary activity to attain the objective. Agencies authorized to conduct inspections as recognized by Virginia rules and regulations are (1) this State Agency, (2) insurance companies registered in Virginia to write boiler and pressure vessel insurance, (3) political subdivisions of the State, and (4) owner-users, who qualify and obtain Virginia commissions for their inspection personnel. Virginia commissions are issued based on results of uniform examinations which are nationally recognized and are provided by the National Board of Boiler and Pressure Vessel Inspectors. During the year two examinations for inspectors were conducted. Ten applicants took the examinations and seven obtained a passing grade. As of 1981 a total of 267 inspectors held current and valid Virginia commissions. These inspectors conduct inspections of equipment during fabrication and assembly; installation; and before, during, and following repair. Frequency and types of inspections are established by the Act.

A written report of each inspection conducted is submitted to the Division on forms prescribed by the rules and regulations. Based on the facts of the inspection report to assure safe operation, the Division issues, withholds, or revokes the required Certificate of Inspection. In 1981 a total of 21,166 inspections were completed and certificates issued. By estimation, there are a minimum of 100,000 boilers and pressure vessels that will require inspection and certification under the Safety Act. Currently there are 49,819 active boilers and pressure vessels registered.

Utilizing the data gained from first inspections, permanent records have been, and will continue to be, established and maintained to include (1) name and location of owner-user; (2) identification and technical details of construction; (3) major repairs or alterations; and (4) specific operational characteristics for each boiler and pressure vessel.

The Division's Chief Inspector is a member of the National Board of Boiler and Pressure Vessel Inspectors and the American Society of Mechanical Engineers (ASME) Conference Committee. As a recognized State jurisdiction and as provided by the ASME Boiler and Pressure Vessel Codes, the Division conducts joint reviews of manufacturers' quality control systems for those plants in Virginia which manufacture or assemble boilers and pressure vessels and which request authorization to use one or more of the Code symbol stamps. In 1981 seven such reviews were conducted. The Division also provides liason functions with ASME and manufacturers of Nuclear Code items, and as such, participated in surveys of three manufacturers who fabricate nuclear vessels and subassemblies.

The Division regularly responds to requests by boiler and pressure vessel related industries to provide technical guidance intended to assist in acquiring ASME symbol authorizations, the development of welding procedures, and the qualification of welders.

There were four occurrences involving boilers and pressure vessels reported during the year. One such failure resulted in a fatality.

The Division, through periodic reviews, will continue to improve those services required by the Boiler and Pressure Vessel Safety Act.

ITEM	1981	1980
Total Objects Registered	49,819	46,323
Certificates Issued	21,166	19,188
Violations Reported	*434	*408
Compliances	*455	*393
Quality Control Reviews	7	10
Nuclear Surveys	3	1
Occurrences	4	9
Fatalities	1	0
Inspectors Examinations	2	4
Applicants Taking Exam	10	14
Applicants Passing Exam	7	13
Commissioned Inspectors (Total Active)	267	266

*Statistical Variation Due to Carry Over From Previous Year(s)

DIVISION OF

STATE LABOR LAW ADMINISTRATION

The Division is responsible for enforcing the provisions of the following laws: Minimum Wage, Payment of Wages, Garnishee, Child Labor, Right-to-Work, Equal Pay Irrespective of Sex, Discrimination Because of Physical Handicaps, Magazine Subscription Solicitation, Employment of Aliens, and certain other protective legislation concerning polygraph tests, medical examinations, preventing employment, and employees' days of rest.

A total of 3,427 inspections were made in 1981. As a result, 1,115 violations of the activities assigned the Division were detected. In most instances, these violations were corrected voluntarily by the employers after being properly instructed. Court action was only taken as a last resort.

Complaints alleging nonpayment of wages continue to increase in number. There were 2,157 written complaints received; and, upon investigation, $343,611.41 was collected on valid claims. An additional $107,861.10 was uncollectible because the employer was in bankruptcy, insolvent, or had left the State and could not be located. Economic downturns in the economy tend to reflect these conditions.

The payment of wage law at present is the only activity of the Division that provides for both civil and criminal proceedings. The institution of civil suits by the representatives to secure wages unlawfully withheld by employers has reflected much success in collection of due wages. Eighty-four civil warrants were obtained through enactment of this policy resulting in 74 judgments amounting to $31,809.62 being obtained in duly earned wages for employees. Ten of these civil cases were dismissed; however, the reason for eight of these dismissals was because the complaining employees were paid before the court dates. It is anticipated that civil warrants will increase appreciably in future years thus providing a significant growth in actual wages collected for employees who have valid wage claims. In addition, it was necessary to institute 17 criminal actions against employers who willfully withheld wages from employees with intent to defraud.

There were 104 complaints received, investigated, and resolved concerning the failure of employers to pay proper State Minimum Wages to employees. Unpaid minimum wages of $6,171.16 were collected for the affected employees. Six Garnishment of Wage complaints were investigated and resolved.

Two Right-to-Work Law complaints were investigated and resolved to the satisfaction of the affected employees.

There were eight complaints received and investigated concerning employers attempting to prevent former employees from obtaining other gainful employment. These complaints were resolved through voluntary compliance.

Investigation of 80 complaints concerning the illegal employment of minors was conducted. Willful and repeated violations of the Child Labor Laws resulted in nine court cases being processed.

Magazine solicitation permits were issued to 77 sales crews traveling throughout the State. One magazine company was reported to be operating without a permit. Upon investigation and instruction, compliance was obtained.

Complaints involving the employment of illegal aliens required 85 investigations. The majority of the employers cooperated by either terminating the employment or releasing the alien until proper certification could be procured authorizing legal employment. It was necessary in three instances to institute court proceedings to gain compliance.

Three complaints were received, investigated, and resolved concerning discrimination in employment practices because of nonrelevant physical handicaps and two complaints on equal pay irrespective of sex. Further, one complaint on employers requiring employees to pay for a medical examination as a condition of employment was received and resolution obtained.

During 1981, there were 15,823 minors working under the jurisdiction of the Division: 6,798 with Employment Certificates; 1,022 with Special Work Permits; 5,625 with Newspaper Carrier Certificates; 2,326 with Age Certificates; and 52 with Work-Training Student-Learner Certificates. There are no statistics concerning minors in exempted jobs or illegally employed. The Division furnishes the necessary forms, instructs, supervises and assists when requested the more than 800 Issuing Officers throughout the State who are charged with the responsibility of issuing properly executed Employment Certificates to minors under 16 years of age. Also, assistance is provided Juvenile Judges and Probation Officers in the issuance of Special Work Permits. Close coordination has been maintained with the Department of Education pertaining to their programs of Industrial Cooperative Training, Distributive Education, Home Economics, Vocational Occupational Training, and Rehabilitation and Vocational Training. Assistance is provided Federal programs, i.e., Youth Corps, Community Action, WECEP, and CETA, etc., for proper placement and certification of trainees.

The Division provides speakers for meetings at school, civic, and business groups to furnish information on the administration and interpretation of the various assigned labor laws. Division representatives are assigned to staff exhibits, distribute literature, and answer questions at Statewide association meetings. Through such efforts as these, employers, employees, potential employees, and other interested persons will become more aware of the various and diversified forms of legislation enacted for the work force in the State. Annually, the Division responds to several thousand telephone calls from those persons requesting information and literature concerning the responsibilities assigned the Division.

To provide reasonable accessibility to the citizens served, representatives of the Division are stationed in eight Field Offices maintained by the Department, in addition to the staff located in the Richmond Office.

As businesses continue to expand and employment increases in Virginia, complaints and requests for assistance are expected to increase accordingly. However, the employees of the Division are dedicated to provide quality service and will make every effort to continue an effective and efficient service to the employees, employers, and the public.

COURT CASES PROCESSED BY CLASSIFICATION

(Civil and Criminal)

1981

Classification	Total
GRAND TOTAL	113
Civil	84
Criminal	29
Payment of Wages and Establishment of Regular Pay Periods	101
Civil	84
Criminal	17
Child Labor Laws of Virginia	9
Criminal	9
Employment of Illegal Aliens	3
Criminal	3

COURT DISPOSITIONS ON VIOLATIONS PROCESSED

(Civil and Criminal)

1981

Title and Section Code of Virginia		Number of Warrants Issued	Convictions	Dismissals	Nol-Pros	Judgment Awarded
	TOTAL	113				
	Civil	84				
	Criminal	29				
40.1-29	Payment of Wages and Establishment of Regular Pay Periods	101				
	Civil	84		10		74
	Criminal	17	10		7	
40.1-78 et seq	Child Labor Laws of Virginia	9				
	Criminal	9	8	1		
40.1-11.1	Employment of Illegal Aliens	3				
	Criminal	3	2	1		

COMPLAINT INVESTIGATIONS BY CLASSIFICATION

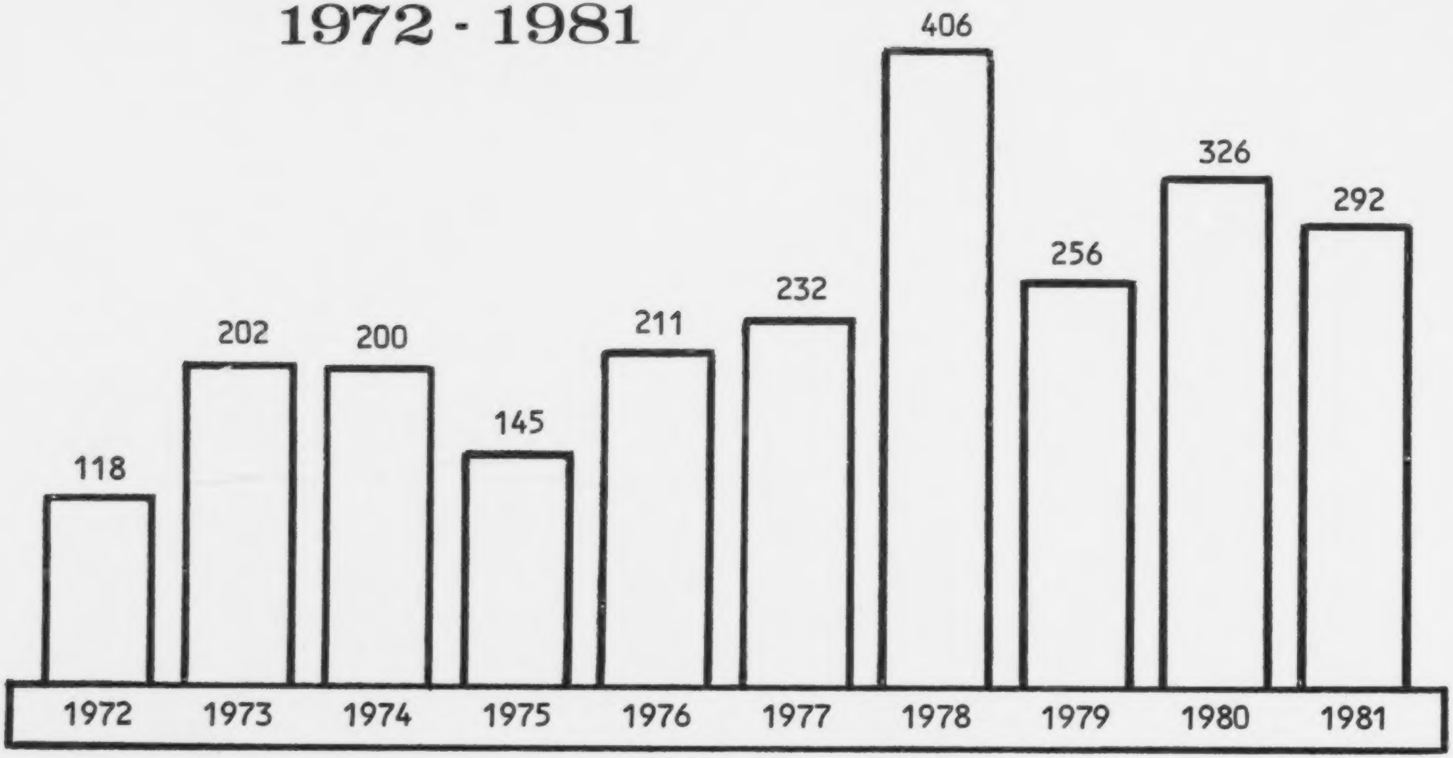
(Excluding Payment of Wages and
Establishment of Regular Pay Periods)

1981

Classification	Total
GRAND TOTAL	292
Virginia Minimum Wage Act	104
Child Labor Laws of Virginia	80
Employment of Illegal Aliens	85
Right-to-Work Law	2
Preventing Employment by Others of Former Employees	8
Unlawful to Require Payment for Medical Examination as Condition of Employment	1
Employers to Allow Employees at Least One Day of Rest in Each Week	0
Equal Pay Irrespective of Sex	2
Discrimination Because of Physical Handicaps Prohibited	3
Soliciting Subscription Contracts for Books, Magazines, Etc.	1
Maximum Portion of Disposable Earnings Subject to Garnishment	6
Prohibition of Use of Certain Questions on Polygraph Tests for Employment	0

COMPLAINT INVESTIGATIONS

1972 - 1981



DIVISION OF

APPRENTICESHIP TRAINING

The Division of Apprenticeship Training is charged with the responsibility of maintaining a statewide system of training as prescribed by the Voluntary Apprenticeship Act of 1938. This is accomplished under the advice and guidance of the Virginia Apprenticeship Council.

Apprenticeship Training Representatives are assigned geographical territories consisting of several cities and/or counties. They assist employers in developing training programs, securing approval for veteran's benefits, securing related instruction, and serving on various local and state advisory committees concerned with manpower training problems. Promotion of apprenticeship training is affected through contacts with industry, guidance personnel, professional groups, trade and labor associations and by participating in career day programs. Services provided by the Division include film and slide presentations and providing speakers for industry promotion and apprentice recruitment.

A continuing working agreement between Industrial Cooperative Training programs in high schools throughout Virginia provides for the registration of high school students pursuing a skilled trade on a part-time basis. This cooperative endeavor will assist students in making the transition from school to full-time employment in a skilled trade.

Services were provided to over 11,000 apprentices during the past year. Programs were registered with 450 new sponsors, resulting in a total of 4,049 new apprentices. Completion certificates were awarded to 1,396 graduates in 1981. This was the eleventh consecutive year that 1,000 or more apprentices completed training in Virginia. The number of active apprentices at the end of the year totaled 7,728, an increase of 616 over the previous year. This included 541 Vietnam veterans utilizing their G. I. Bill educational benefits. The services provided by the Apprenticeship Training Division cost the Commonwealth less than $34.00 per apprentice served during 1981. This figure is considerably lower than other manpower training programs since the on-the-job training and administrative costs are absorbed by employers in the private sector.

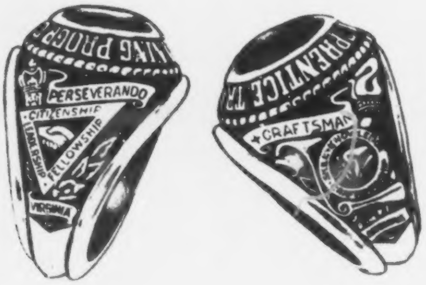
Staff efforts assisted sponsors in promoting equal employment opportunity and the placement of 14.7% minorities and 9.9% females in skilled trade programs. The continued problem of high unemployment of young Virginians will be addressed by the Apprenticeship Training Division through cooperation with program sponsors and other state agencies involved in manpower training and youth services.

Opportunities exist for the Apprenticeship Training Division to work with new and expanding industries throughout the Commonwealth to meet their needs for a highly skilled work force which can best be trained through the apprenticeship method. New apprenticeable trades continue to be recognized nationally which will impact on Virginia's training efforts.

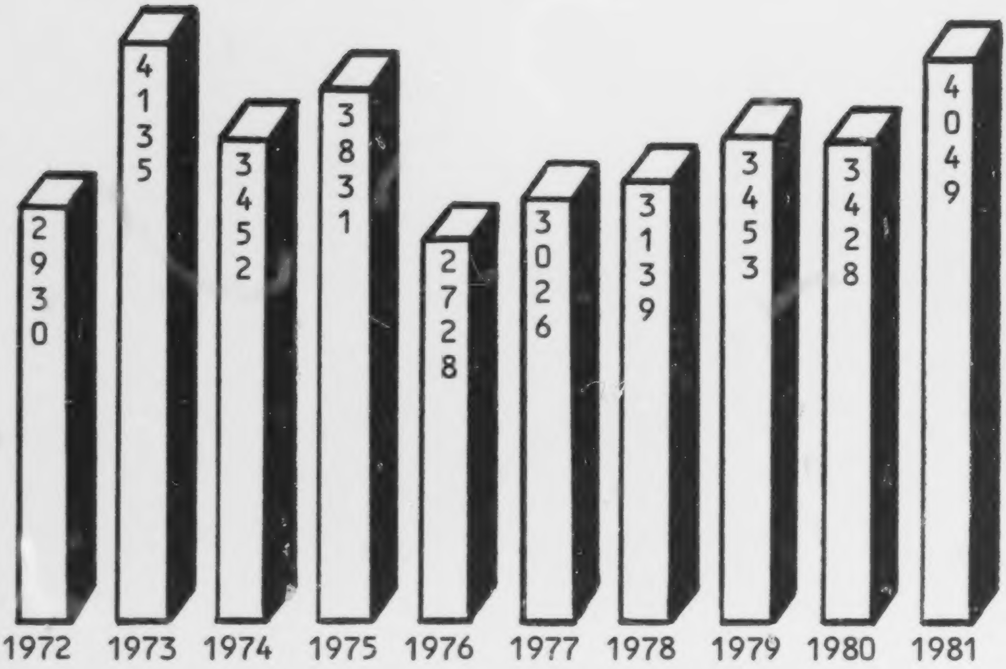
The Apprenticeship Training Division, through cooperation with private industry, labor and other state and federal agencies, will continue to improve services to meet the goals and objectives set forth to expand the skilled work force of the Commonwealth.

VIRGINIA APPRENTICESHIP RING

Virginia is the first state to adopt a state-wide apprenticeship program ring. The class ring is purchased by the new journeyperson, at his option, upon satisfactorily fulfilling all of the requirements of his registered apprenticeship. The ring symbolizes pride in craftsmanship and dignity in work. It commemorates the acquisition of skill and the accumulation of knowledge.

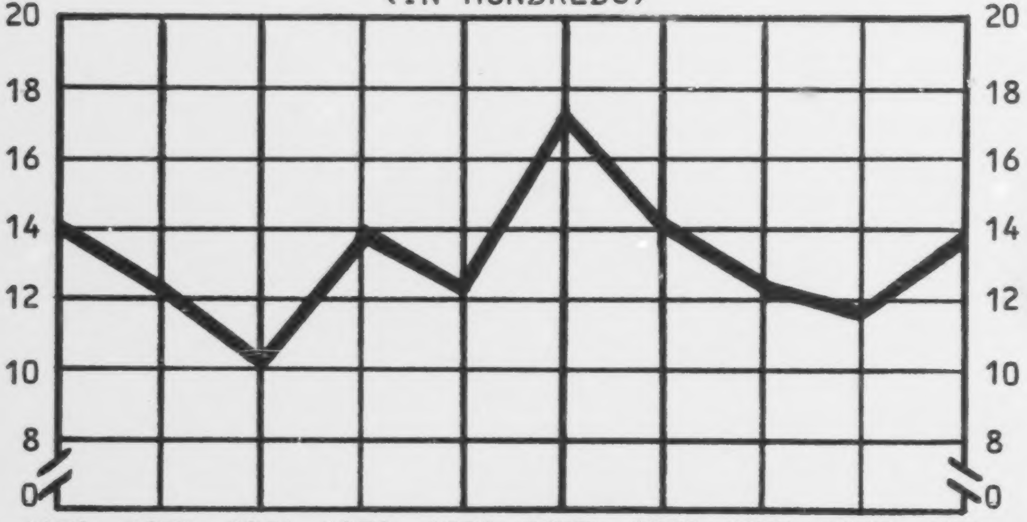

NING PROGR
PERSEVERANDO
CITIZENSHIP
LEADERSHIP
FELLOWSHIP
VIRGINIA
PRENTICE TR
CRAFTSMAN

NUMBER OF NEW APPRENTICES REGISTERED
1972 - 1981



NUMBER OF APPRENTICES COMPLETED
1972 - 1981

(IN HUNDREDS)



STATISTICAL DATA ON APPRENTICESHIP PROGRAM

1940 - 1981

ITEMS	Total 1940-1980	Total 1981
Firms approved to train apprentices	15,892	450
Programs revised 1/	-	507
Apprentices active at beginning of 1980	-	7,114 c/
Apprentices registered and reinstated	80,189 c/	4,118 c/
Apprentices cancelled	45,392 c/	1,966 a/
Apprentices suspended	-	17
Apprentices completed without a certificate	-	125 b/
Apprentices completed with a certificate	24,943	1,396
Apprentices active December 31, 1981	-	7,728 c/

1/ Programs changed to incorporate wage changes, outline of training schedules, etc.

a/ The number of cancellations is due largely to two factors: (1) work shortage and (2) removal of apprentices who refused to take related instruction.

b/ These are apprentices who completed the on-the-job phase of their training but for some reason did not complete all related instruction requirements.

c/ This figure includes Newport News Shipbuilding and Dry Dock Company apprentices and apprentices in nationally registered programs.

REGISTERED APPRENTICESHIP SYSTEMS, PARTICIPATING ESTABLISHMENTS, AND APPRENTICES, BY TYPE OF SYSTEM IN VIRGINIA AS OF DECEMBER 31, 1981 1/

APPRENTICESHIP SYSTEMS AND RELATED FACTORS	Type of System					
		Group		Individual		
					Not Joint	
	All Types	Joint	Not Joint	Joint	No Union	Union Waiver
Systems, Total	2,401	39	7	66	2,265	24
Sytems with no apprentices	1,079	2	0	24	1,047	6
Systems having apprentices	1,322	37	7	42	1,218	18
Apprentices, Total	7,728	1,078	223	672	5,587	168

1/ DEFINITIONS FOR STATISTICAL PURPOSES

The following definitions are intended for statistical purposes only to cover variations in current practices among states, and to permit uniformity in national tables. They are not intended as substitutes for any definitions already contained in the policies of state or Federal authorities.

Apprenticeable occupation

Any occupation so designated by the Bureau of Apprenticeship or a State Apprenticeship Agency recognized for statistical purposes by the Bureau of Apprenticeship.

Registered apprentice

An employee who under an expressed or implied agreement for a stipulated term, receives instruction in an apprenticeable occupation, and who is employed in a registered apprenticeship system, and concerning whom a recognized apprenticeship agency has on record all of the information it requires.

Registered apprenticeship system

A system for the training of apprentices through employment, established by employer(s) and/or union(s), and in which authority has been placed for determining that an apprentice has completed his training, and regarding which a written description of the terms and conditions of employment and training of apprentices has been registered by a recognized apprenticeship agency.

Types of registered apprenticeship systems

(GJ) Group Joint - A system embracing two or more companies which is jointly established by employers and union(s), and operated by a committee equally representative of employers and union(s).

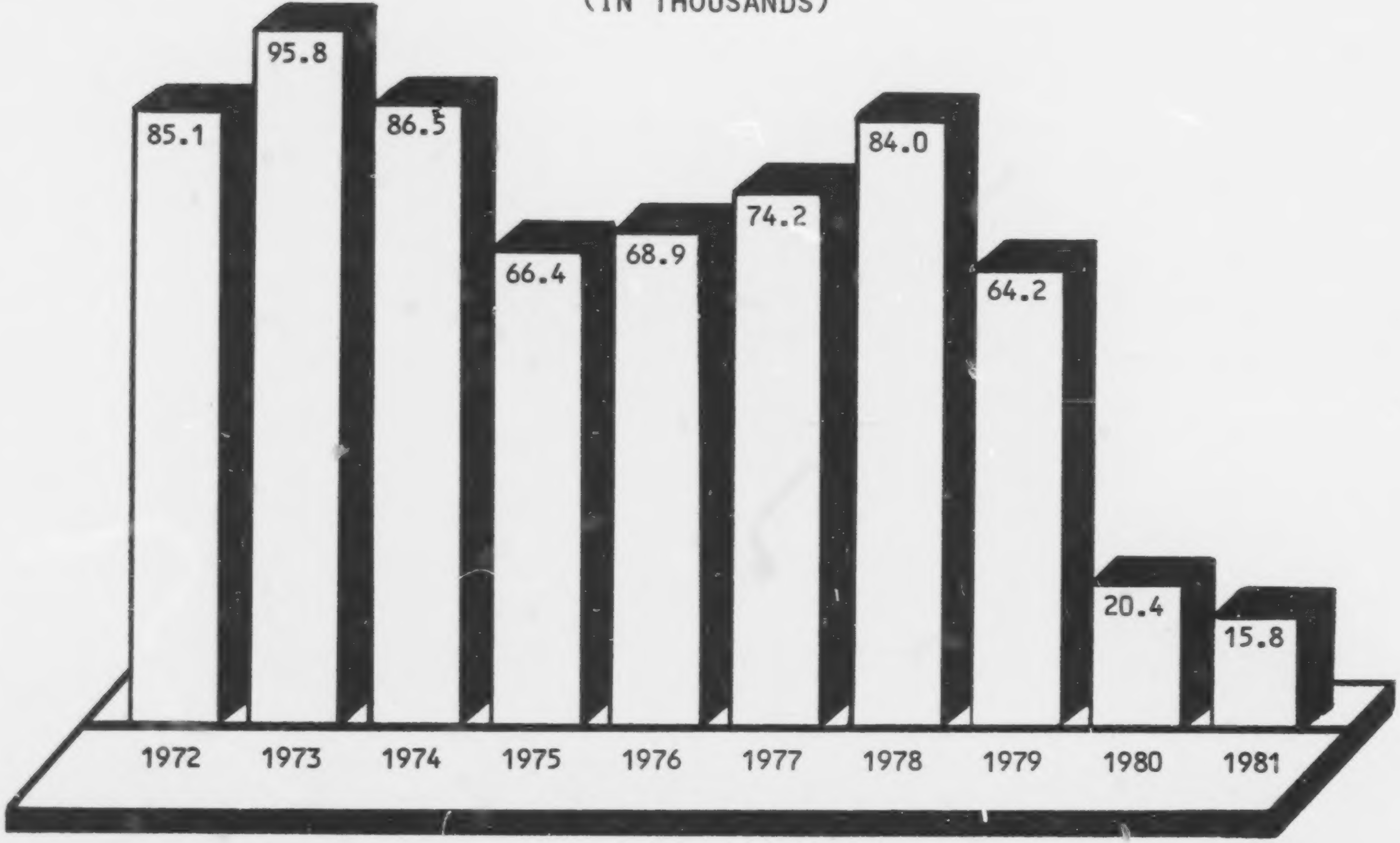
(GW) Group Waiver - A system embracing two or more companies which is jointly established by employers of union(s), but in which one of the parties has waived participation in the operation of the system.

(GN) Group Not-Joint - A system embracing two or more companies which is established and operated by employers only.

(IJ) Individual Joint - A system limited to one company which is jointly established by employer and union(s), and operated by a committee equally representative of employer and union(s).

(IW) Individual Waiver - A system limited to one company which is jointly established by employer and union(s), but in which the union has waived participation in the operation of the system.

(IN) Individual Not-Joint - A system limited to one company which is established and operated by employer only.



EMPLOYMENT CERTIFICATES ISSUED MINORS AGES 12 TO 18
1972 - 1981
(IN THOUSANDS)

JOINT REGISTERED APPRENTICESHIP SYSTEMS AND REGISTERED APPRENTICES IN JOINT SYSTEMS BY TYPE OF SYSTEM AND BARGINING AGENCY IN VIRGINIA AS OF DECEMBER 1981

Bargining Agency	Bargaining Agency Code	Joint Systems			Apprentices in Joint Systems		
		Total	Group	Individual	Total	Group	Individual
All A.F.L. & C.I.O. Unions	35	105	39	66	1,751	1,078	673
Asbestos Workers	05	4	3	1	17	14	3
United Automobile Workers of America	06	1	0	1	9	0	9
Bakery and Confectionary Workers	07	1	0	1	4	0	4
Boilermakers	11	1	0	1	354	0	354
Bookbinders	12	1	0	1	1	0	1
Bricklayers, Masons and Plasters	14	5	4	1	44	44	0
Bridge, Structural and Ornamental Iron	15	3	3	0	42	42	0
Carpenters and Joiners	18	4	4	0	119	119	0
International Chemicals Workers	20	2	0	2	24	0	24
Electrical Workers	26	13	8	5	527	482	45
Engineers	28	2	2	0	29	29	0
Glass Bottle Blowers Association of U.S.	35	2	1	1	16	16	0
Glass Workers	37	2	1	1	17	14	3
Lathers - Wood, Wire and Metal	47	0	0	0	0	0	0
Tile and Marble Setters	53	1	0	1	1	0	1
Mine Workers of America	59	1	0	1	34	0	34
Painters, Decorators and Paperhangers	63	3	3	0	46	46	0
Patternmakers	65	0	0	0	0	0	0
Photo-Engravers	66	1	0	1	6	0	6
Plasterers and Cement Finishers	67	2	2	0	8	8	0
Plumbing and Pipefitting	69	5	4	1	170	167	3
Printing Pressman and Assistants	74	9	0	9	19	0	19
Sheet Metal Workers	86	3	3	0	47	47	0
Sterotypers and Electrotypers	93	1	0	1	0	0	0
Teamsters, Chauffeurs, Warehousemen and Helpers	99	2	0	2	18	0	18
United Textile Workers of America	101	0	0	0	0	0	0
International Typographical Union	103	2	0	2	0	0	0
Combined A.F.L. Unions	299	1	0	1	0	0	0
Paperworkers of America	327	1	0	1	41	0	41
Rubber, Cork, Linoleum & Plastic Workers of America	332	1	0	1	41	0	41
United Steel Workers	334	3	0	3	12	0	12
Machinists I.A.M.	618	22	0	22	43	0	43
Union Affiliation Not Indicated	900	1	1	0	50	50	0
Union Unassigned	901	4	0	4	10	0	10
Aluminum Workers International	902	1	0	1	2	0	2

ACTIVITIES OF APPRENTICESHIP TRAINING FIELD REPRESENTATIVES

The Apprenticeship Training Field Representatives are daily making an important contribution to increasing the productivity of industry an business throughout Virginia. The Apprenticeship Training Field Representative, because of the nature of his position, background of trade and educational experience and knowledge of employer and employee relations, provides an effective counseling and advisory service to over 2,000 business and industrial establishments each year.

Many establishments, too small to employ personnel and training specialists, rely on the field representatives to advise and assist in the planning and developing of training programs that meet their respective needs. These programs are helping to increase productivity by reducing waste and inefficiency through the development of all-round skilled mechanics. While the Apprenticeship Training Field Representative has no responsibility for placement of an apprentice, he performs an important service to industry, the community and the state through his activity of advising employers on entrance requirements for apprentices, taking part in high school career programs, promoting the use of approved guidance and testing procedures offered by the Virginia Employment Service. Another contribution in the public interest is brought about by the field representative who brings labor and management together as a Joint Apprenticeship Committee, where they work harmoniously for the best interest of industry and the young apprentice who is the future mechanic.

The field representative, because of his position and experience, probably has a better opportunity to provide an effective service to industry and community through the development and maintenance of skill than any other public employee.

ACTIVITY REPORT FOR APPRENTICESHIP FIELD REPRESENTATIVES

1981 REPORT OF APPRENTICE ACTIONS BY AREAS

Area	New Agreements	APPRENTICE INFORMATION Rein-statements	Supen-sions	Cancel-lations	Comple-tions	Completions Without Certificate	New Programs	PROGRAM INFORMATION Revised Programs	Cancelled Programs
Bristol	110	6	1	58	35	12	30	15	70
Front Royal	153	0	0	99	49	2	37	29	15
Lynchburg	103	1	0	120	56	13	18	18	97
Newport News 1/	163	3	0	102	72	8	39	34	27
Norfolk (I-JC)	309	7	0	110	70	7	23	28	11
Norfolk (II-TK)	147	3	1	131	54	16	39	67	110
Northern Virginia (I-FG)	220	13	8	195	78	6	43	40	11
Northern Virginia (II-DK) 2/	202	9	3	128	61	3	28	41	2
Richmond (I-XX) 3/	371	4	1	313	171	7	29	90	40
Richmond (II-WP)	244	3	0	130	117	1	38	26	6
Roanoke (I-RV)	233	10	1	119	62	19	57	39	37
Roanoke (II-WW)	190	7	1	122	65	24	37	49	28
Staunton	180	0	1	70	68	7	32	31	7
TOTALS BY AREAS	2,625	66	17	1,697	958	125	450	507	461
National & In-Plant Programs	1,424	3	0	269	438	0	0	0	0
GRAND TOTAL	4,049	69	17	1,966	1,396	125	450	507	461

1/ Area has been worked by two representatives at different times.
2/ Position vacant for one and one-half months.
3/ Position vacant (federal representative).

FIELD STAFF CONTACTS

BY AREAS AND TYPES

1981

The following is a report showing contacts made by areas and types during 1981 by the field staff of the Division of Apprenticeship Training. Development Contacts are contacts for the purpose of promoting and developing new Apprenticeship Training Programs in individual plants, joint committees, areas, trades, etc. Maintenance Contacts are contacts for the purpose of servicing or maintaining Apprenticeship Training Programs already approved and registered by the Council. Other Contacts are contacts with Vocational Education people, local school officials, Employment Service people, school guidance personnel and all other groups and associations related to and interested in Apprenticeship Training.

Area	Development	Maintenance	Other	Totals
Bristol	330	461	361	1,152
Front Royal	113	534	93	740
Lynchburg	133	310	95	538
Newport News 1/	61	311	36	408
Norfolk (I-JC)	211	444	185	840
Norfolk (II-TK)	118	664	132	914
Northern Virginia (I-FG)	105	1,517	85	1,707
Northern Virginia (II-DK) 2/	77	427	154	658
Richmond (I-XX) 3/	0	0	0	0
Richmond (II-WP)	169	449	178	796
Roanoke (I-RV)	86	288	241	615
Roanoke (II-WW)	132	496	159	787
Staunton	311	447	211	969
TOTALS	1,846	6,348	1,930	10,124

1/ Area has been worked by two representatives at different times.
2/ Position vacant for one and one-half months.
3/ Position vacant (federal representative).

COMPARATIVE REPORT OF CONTACTS MADE BY FIELD STAFF

BY MONTHS AND TYPES

1981

The following is a comparative report of the contacts made by the field staff of the Division of Apprenticeship Training during 1981. This report is based on the same figures used in compiling the report of contacts made by the field staff and shown by areas and types. This table shows the types of contacts by the number made during each month of the year.

Month	Development	Maintenance	Other	Totals
January	114	517	149	780
February	178	453	158	789
March	161	636	182	979
April	152	712	175	1,039
May	146	513	164	823
June	184	511	134	829
July	159	481	163	803
August	160	484	170	814
September	226	539	173	938
October	158	624	191	973
November	127	465	157	749
December	81	413	114	608
TOTALS	1,846	6,348	1,930	10,124

APPRENTICE ACTIVITY BY OCCUPATION GROUP
1981

Occupation	Beginning Period	New Apprentices	Reinstatements	Cancellations	Suspensions	Completions	CWC*	End of Period	Sponsors of Occup.
Architectural Drafter	1	0	0	0	0	0	0	1	2
Electronic Technician	30	11	0	3	0	6	0	32	12
Instrument Technician	0	2	0	0	0	0	0	2	1
Electronic Drafter	1	1	0	0	0	1	0	1	2
Engineering Aide	8	1	0	6	0	0	0	3	2
Civil Drafter	6	0	0	5	0	1	0	0	6
Tool Designer	1	1	0	0	0	0	0	2	3
Machinist (Engineering Aide)	0	4	0	0	0	0	0	4	2
Mechanical Drafter	0	6	0	0	0	1	0	5	8
Detailer (Furniture)	1	0	0	1	0	0	0	0	1
Drafter (Commercial)	1	0	0	0	0	0	0	1	1
Party Chief (Surveyor)	45	7	2	18	0	0	4	32	34
Instrument Surveyor Assistant	5	2	0	2	1	0	0	4	8
Laboratory Technician	1	0	0	0	0	0	0	1	1
Materials Technician	3	0	0	3	0	0	0	0	2
Dental Assistant	1	0	0	0	0	1	0	0	1
Commercial Photographer	1	0	0	0	0	1	0	0	1
Bus Terminal Manager	1	0	0	1	0	0	0	0	1
Legal Secretary	1	0	0	1	0	0	0	0	1
Materials Expediter	1	0	0	1	0	0	0	0	1
Mailer	0	1	0	0	0	0	0	1	1
Auto Parts Clerk	1	0	0	0	0	0	1	0	2
Optician (Dispensing)	30	35	0	17	1	5	1	41	50
Cook	30	107	4	30	0	11	1	99	36
Meat Cutter	4	5	1	0	0	4	0	6	14
Barber	82	106	3	37	1	53	1	99	260
Cosmetician	368	381	11	268	1	132	11	348	926
Shoe Repairer	1	2	0	1	0	0	0	2	2
Correction Officer	5	0	0	1	0	4	0	0	1
Plater	4	7	0	0	0	3	0	8	4
Electric Instrument Mechanic (Chemical)	4	0	0	0	0	1	0	3	1
Molder	17	9	0	2	0	2	0	22	2
Miller	1	0	0	1	0	0	0	0	2
Baker	3	1	0	1	0	1	0	2	3
Plywood Furniture Technician	2	0	0	2	0	0	0	0	1
Furniture Manufacturing Technician (Veneer)	3	0	0	3	0	0	0	0	1
Experimental Facilities Mechanic	29	17	0	2	0	13	0	31	1
Instrument Maker	0	1	0	0	0	1	0	0	1
Machinist	517	335	9	123	3	95	14	626	218
Auto Machinist	5	3	0	1	0	0	1	6	10
Experimental Machinist	5	12	0	1	0	2	0	14	2
Maintenance Machinist	24	20	0	1	0	5	0	36	16
Job Setter	0	9	0	0	0	0	0	9	1
Machine Set-Up Operator	0	6	0	0	0	0	0	6	1
Mold Maker (Die Casting & Plastic Molding)	10	3	0	1	0	0	0	12	1
Tool Maker	9	2	1	3	0	1	2	6	6
Tool & Die Maker	65	50	0	14	0	15	4	82	42
Surface Grinding Specialist	0	9	0	4	0	1	0	4	1
Grinder (Internal-External Specialist)	0	1	0	1	0	0	0	0	1
Highway Construction Inspector	5	0	0	0	0	1	0	4	2
Blacksmith	7	3	0	1	0	2	0	7	2
Inspector (Metal Fabricating)	0	17	0	0	0	0	0	17	1
Metal Fabricator	11	9	1	1	0	1	0	19	7
Auto Mechanic	81	20	0	30	0	11	6	54	127
Construction Equipment Mechanic	71	19	1	19	0	22	1	49	25
Truck Mechanic	24	8	0	12	0	4	1	15	26
Motorcycle Mechanic	7	0	0	4	1	1	0	1	7
Transmission Mechanic	3	3	0	2	0	1	0	3	2
Aerospace Engineering Technician	2	1	0	0	0	2	0	1	2
Outside Machinist	212	159	1	20	0	64	6	288	5
Motorboat Mechanic	1	0	0	0	0	1	0	0	4
Farm Equipment Mechanic	5	5	0	2	0	2	0	6	12
Diesel Mechanic	21	16	0	5	0	10	1	21	17
Fuel Injection Mechanic	1	0	0	0	0	0	0	1	3
Gas Engine Mechanic	2	0	0	1	0	0	0	1	4
Maintenance Mechanic (Chemical)	6	0	0	0	0	1	0	5	1
Treatment Plant Mechanic	18	2	0	2	0	0	0	18	2
Gunsmith	2	3	0	3	0	0	0	2	2
Cash Register Servicer	1	0	0	0	0	0	0	1	2
Office Machine Servicer	46	2	0	3	0	2	2	41	14
Scale Mechanic	2	2	0	1	0	1	0	2	3
Industrial Air Conditioning Mechanic	3	11	0	3	0	1	0	10	13
Gas Appliance Servicer	2	0	0	0	0	1	0	1	2
Refrigeration Mechanic	66	40	2	17	2	16	0	73	45
Maintenance Mechanic	213	104	2	51	0	36	10	222	96
Millwright	123	31	0	4	0	32	0	118	16
Bowling Alley Maintenance Mechanic	1	0	0	0	0	0	0	1	2
Machine Assembler	3	0	0	3	0	0	0	0	1
Industrial Sewing Machine Repairer	1	0	0	0	0	0	0	1	1
Cylinder Press Operator	1	0	0	0	0	1	0	0	3
Rotogravure Press Operator	58	0	0	1	0	4	0	53	2
Web Press Operator	38	12	0	0	0	16	2	32	11
Printer	0	1	0	0	0	0	0	1	1
Offset Press Operator	14	0	0	1	0	3	1	9	21
Collating Machine Operator	0	1	0	1	0	0	0	0	3
Bindery Worker	42	11	0	2	0	10	0	41	7
Cabinet Maker	42	18	1	13	0	7	0	41	38
Loft Worker	15	6	0	4	0	3	0	14	1
Wood Patternmaker	11	5	0	1	0	3	0	12	7
Molder Operator	1	0	0	1	0	0	0	0	1
Machinist, Wood (Millman)	32	2	0	32	0	0	1	1	7
Metal Patternmaker	16	2	0	5	0	0	0	13	4
Engineering Technician (Aerospace Model Development)	10	7	0	0	0	3	0	14	1
Jeweler	1	2	0	1	0	0	0	2	3
Locksmith	4	3	0	0	0	0	0	7	8
Electro-Mechanical Technician	13	4	0	5	0	1	2	9	3

APPRENTICE ACTIVITY BY OCCUPATION GROUP
1981

Occupation	Beginning Period	New Apprentices	Reinstatements	Cancellations	Suspensions	Completions	CWC*	End of Period	Sponsors of Occup.
Instrument Mechanic	32	7	0	2	0	12	0	25	9
Meter Repairer	1	0	0	0	0	0	0	1	1
Dental Lab Technician	2	1	0	0	0	0	0	3	5
Prosthetics Technician	1	0	0	0	0	0	0	1	2
Optician	0	1	0	0	0	0	0	1	1
Opthalmic Technician	1	0	0	0	0	0	0	1	1
Optical Lab Technician	2	0	0	0	0	0	0	2	4
Biomedical Equipment Technician	2	0	0	0	0	0	0	2	1
TV & Radio Repairer	9	6	0	1	0	4	0	10	7
Repairer & Winder	1	0	0	0	0	0	0	1	1
Electric Motor Repairer	5	2	3	1	1	1	1	6	9
Electronics Inspector (Quality Control)	0	2	0	0	0	0	0	2	1
Electro-Medical Equipment Repairer	0	1	0	0	0	1	0	0	1
Bootmaker	1	0	0	0	0	1	0	0	1
Plastics Fabricator	3	3	0	0	0	2	0	4	3
Furniture Finisher	7	0	0	6	0	0	0	1	6
Furniture Assembler	10	1	0	11	0	0	0	0	3
Potter	1	0	0	1	0	0	0	0	1
Furniture Upholsterer	2	4	0	0	0	1	0	5	5
Sail Maker	5	7	0	0	0	0	0	12	1
Structural Steel Worker	57	10	0	10	0	10	6	47	6
Sheet Metal Worker	333	154	1	82	0	48	3	355	122
Boilermaker	59	38	0	7	0	10	0	80	3
Boilerhouse Mechanic	6	11	0	0	0	4	0	13	1
Rigger (Ship)	87	71	0	18	0	20	0	120	4
Shipfitter	253	145	0	49	0	48	0	301	4
Truck Body Builder	2	0	0	1	0	1	0	0	2
Auto Body Repairer	18	5	0	9	0	0	4	10	34
Fabricator-Assembler (Metal)	2	3	0	2	0	0	0	3	2
Ornamental Ironworker	0	1	0	1	0	0	0	0	2
Welder	171	142	0	44	0	40	1	228	23
Line Erector (Power & Light)	33	0	0	0	0	0	0	33	8
PBX Installer	3	0	0	3	0	0	0	0	1
Electrician	1,041	426	2	262	1	152	4	1,050	261
Ship Electrician	255	178	0	32	0	56	0	345	5
Electric Appliance Servicer	5	0	0	2	0	1	1	1	11
Electronics Mechanic	93	56	0	0	0	23	1	125	8
Maintenance Electrician	135	59	2	18	0	17	2	159	74
Sound Technician	0	3	0	0	0	3	0	0	1
Cable Splicer	9	[illegible]	0	0	0	5	0	10	1
Painter	67	22	1	22	0	5	3	60	15
Painter (Ship)	43	36	0	10	0	6	0	63	4
Lather	6	8	0	1	0	3	1	9	7
Plasterer	7	5	0	4	0	0	1	7	7
Drywall Taper	0	1	0	0	0	0	0	1	1
Drywall Applicator	5	1	0	5	0	1	0	0	1
Cement Mason	5	3	0	0	0	0	1	7	3
Auto Painter	1	0	0	0	0	0	1	0	2
Operating Engineer	37	1	0	5	0	1	0	32	10
Maintenance Carpenter	8	2	0	2	0	0	0	8	9
Ship Carpenter	19	9	0	1	0	3	0	24	2
Carpenter	363	203	5	185	1	35	2	348	108
Carpenter (Rough)	4	1	0	0	0	0	0	5	1
Joiner (Ship)	24	16	0	0	0	4	0	36	3
Shipwright	22	23	0	0	0	13	0	32	2
Bricklayer	137	37	3	42	3	27	2	103	50
Tile Setter	3	2	0	1	0	1	0	3	5
Sewer Systems Supervisor	0	7	0	0	0	0	0	7	1
Pipefitter	286	163	1	41	0	56	0	353	4
Coppersmith	0	1	0	0	0	1	0	0	2
Oil Burner Servicer & Installer	2	3	0	0	0	0	0	5	3
Pipefitter	235	74	1	35	0	55	0	220	64
Plumber	354	111	0	114	1	54	9	295	167
Insulation Worker	70	67	1	55	0	7	0	76	12
Pipecoverer	38	16	1	4	0	6	0	45	2
Floor Layer	2	1	0	1	0	1	1	1	9
Glazier	13	9	0	4	0	2	1	15	6
Asbestos Worker	16	4	0	9	0	1	1	9	2
Dockmaster	2	0	0	0	0	1	0	1	1
Maintenance Repairer (Factory Or Mill)	1	0	0	0	0	0	0	1	1
Maintenance Repairer (Building)	11	136	1	32	0	4	16	96	43
Rigger	0	2	0	0	0	0	0	2	1
Furniture Manufacturing Technician	1	0	0	1	0	0	0	0	1
Stationary Engineer	12	1	0	0	0	6	0	7	5
Water Treatment Plant Operator	16	5	0	0	0	6	2	7	5
Wastewater Treatment Plant Operator	40	40	0	18	0	1	0	61	5
Layout Former	0	3	0	1	0	0	0	2	1
Photo Retoucher	6	0	0	0	0	2	0	4	1
Etcher (Photoengraving)	20	0	0	1	0	5	0	14	2
Photo Engraver	0	1	0	0	0	1	0	0	5
Finisher (Photoengraving)	2	0	0	0	0	0	0	2	1
Printer (Photoengraving)	2	0	0	0	0	0	0	2	1
Stripper (Photoengraving)	0	1	0	0	0	0	0	1	4
Photographer (Photoengraving)	7	0	0	0	0	1	0	6	2
Lithographer	2	0	0	0	0	0	0	2	5
Transferrer	3	1	0	0	0	3	0	1	4
Compositor	2	2	0	1	0	1	0	2	11
Job Printer	1	0	0	1	0	0	0	0	6
Book Binder	1	0	0	1	0	0	0	0	2
Engraver (Machine)	3	0	0	0	0	0	0	3	1
Stripper	7	2	0	0	0	0	0	9	3
Screen Printer	1	0	0	1	0	0	0	0	1
TOTALS	7,114	4,045	55	1,966	17	1,936	125	7,728	3,519

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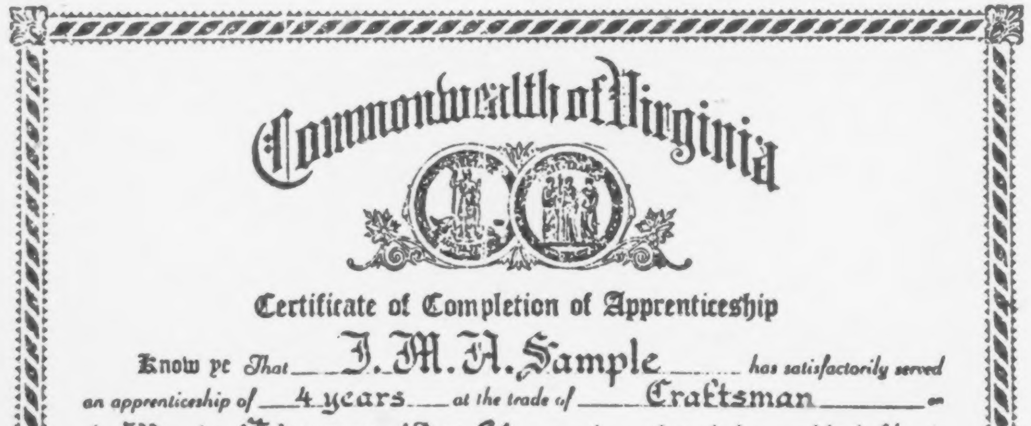
*Completion without certificate - apprentices who completed on-the-job training but did not complete related instruction.

INDUSTRIES WITH APPRENTICESHIP PROGRAMS GROUPED BY THE NUMBER OF EMPLOYEES EMPLOYED

1981

Number of Systems	Number of Employees in Firm
1,283	1 to 9
493	10 to 24
217	25 to 49
128	50 to 99
88	100 to 199
141	200 to 999
41	1,000 to 4,999
8	5,000 or more
2	Size Class N/A
2,401	TOTAL SYSTEMS



Commonwealth of Virginia

Certificate of Completion of Apprenticeship

Know ye That J. M. A. Sample has satisfactorily served an apprenticeship of 4 years at the trade of Craftsman on this 5th day of February A.D. 19 81 in accordance with standards approved by the Virginia Apprenticeship Council and is, by virtue of the Statutes of the Commonwealth, awarded this certificate.

In Testimony Whereof the official signatures of the Virginia Apprenticeship Council have been subscribed hereon this 11th day of November A.D. 19 80

For the Council

Chairman

Secretary

DIVISION OF INDUSTRIAL SAFETY

The Division of Industrial Safety is charged with the responsibility of administering the provisions of Title 40.1 relating to the safety of employees employed in industrial and commercial establishments throughout the Commonwealth in both the public and private sectors.

On October 1, 1976 the Division began enforcement activities in the private sector in accordance with the State Plan, approved by the U. S. Department of Labor under Section 18(b) of the Occupational Safety and Health Act. The state entered into an operational agreement on October 1, 1981 with the U. S. Department of Labor which now allows Virginia to assume responsibility for the enforcement of the VOSH Program in those areas covered by the State Plan. The State Plan sets forth the policies and procedures the State will follow in an effort to assure a safe and healthful workplace for all employees. In an effort to reach this goal, scheduled inspections, inspections responding to complaints from employees and/or their representatives, and investigations of fatalities and catastrophes are conducted.

During 1981 a total of 969 inspections were made of worksites in the private and public sectors covering both manufacturing and non-manufacturing operations. As a result of those inspections, over 3,891 violations were found and cited by the Compliance Safety and Health Officers. Fifty-seven (57) informal conferences concerning issued citations were conducted by the Division with employers requesting such conferences, and court proceedings were initiated for enforcement where settlement could not be reached through conciliation.

Latest figures show Virginia has a total cases incidence rate of 8.1 in 1980 of job-related injuries and illnesses per 100 full-time workers in the private sector compared to the national average rate of 8.7. In 1979 Virginia's rate was 8.6 as compared to the national average of 9.5. In looking at these figures it would seem to indicate that the State Safety Program and the cooperation of employers and employees is contributing toward the progress being made in the continuing effort to improve the safety and health conditions in the Commonwealth's workplaces. Also contributing to this progress are the programs, demonstrations and workplace visits of the Division of Voluntary Safety Compliance/Training.

The staff of the Division of Industrial Safety participated in Regional Safety Conferences sponsored by the Virginia Safety Association. Compliance Safety and Health Officers attended ten (10) safety schools conducted at the OSHA Institute in Des Plaines, Illinois and three (3) safety schools conducted in Richmond in an effort to update their skills and expertise in current standards and interpretations.

The Division also participated in three (3) training seminars and provided speakers for six (6) programs sponsored by various groups representing both management and labor to better acquaint employers and employees in the implementation of the Program.

The Division suffered only one vacancy during the course of 1981, but was burdened with a 22% turnover in Compliance Officers which resulted in less General Schedule inspections thereby impacting on the number of violations noted.

The Industrial Safety Division will continue its efforts toward reducing the number of work-related injuries and illnesses in Virginia by providing an effective inspection, accident investigation and enforcement program. Through the identification of hazards and the timely abatement of those hazards the Division hopes to continue to reduce the incidence rate.

ANALYSIS OF ACTIVITIES OF THE INDUSTRIAL SAFETY DIVISION

1980 & 1981

ITEM	ACCOMPLISHMENTS	
	1980	1981
General Schedules Inspection	731	527
Fatality Investigations	26	22
Total Accident Investigations	98	146
Complaint Investigations	164	153
Follow-Up Inspections	162	143
Total Safety Inspections	1,155	969
Safety Violations Noted	4,178	3,891
Court Cases Completed	11	2
Informal Conferences	52	57
Speeches and Seminars	8	10
Safety Schools for Representatives	4	13
State Safety Conference	1	1

DIVISION OF CONSTRUCTION SAFETY

The Division of Construction Safety is responsible for the administration and enforcement of those laws pertinent to the safety and health of employees engaged in construction, demolition, and excavation work. The authority for this enforcement is derived from the Title 40 Labor Laws of Virginia, which apply to both the public and private sectors.

The Division's primary function is to make scheduled inspections of construction and related worksites. In addition, the Division's staff of compliance officers is required to respond to complaints from employees and/or their representatives and to investigate fatalities and catastrophes. The objective of the overall program is to eliminate workplace hazards through inspection, abatement, and enforcement.

On October 1, 1981, the State achieved operational status under the 18(b) Agreement approved September 23, 1976, by the U. S. Department of Labor. This status will eliminate Federal enforcement in the State except in those areas designated.

A total of 1,552 safety inspections was conducted in both the public and private sectors during the year 1981. This was an increase of 3% over 1980. An average of sixteen compliance officers cited 3,507 violations of Virginia's occupational safety and health laws and standards, a 42% increase over 1980. Forty-one cases were litigated in either the General District of Circuit Courts, an increase of 46% over 1980. Others were settled either by voluntary settlement or in informal conferences. Penalties in the amount of $74,445 were assessed, up from 1980 by 2%. Sixty-seven informal conferences were conducted by the Director and/or Field Supervisors with employers and/or their representatives. This was an increase of 18% over the year 1980. The latest statistical figures indicate that the incidence rate of total cases in the construction industry decreased by 2% from 1979 to 1980.

The Division's staff investigated 79 complaints from employees and/or their representatives. This was a decrease of 23% over 1980. Employee complaints of hazardous conditions take first priority and there was never a backlog during the year.

It is the Division's goal to continue to improve the safety conditions at the worksite for the employees through an effective on-site inspection program.

The Compliance Safety and Health Officers attend on a regular basis various technical classes at the Occupational Safety and Health Institute in Chicago, Illinois. This on-going program enables the Compliance Officers to stay abreast with modern technology in the construction industry and provides the compliance officers with the technical expertise required for the job.

The manufacturing, storage, handling, use and sale of explosives, over which the Division maintains control and issues permits, presented little problem in 1981. Three court cases resulted from violations of this statute.

It is the goal of this Division to maintain a consistent and efficient inspection system using every available resource to obtain a safe work environment free from recognized hazards.

ANALYSIS OF ACTIVITIES OF THE CONSTRUCTION SAFETY DIVISION

1979 - 1981

Item	Accomplishments		
	1981	1980	1979
Safety Inspections:			
Accident Inspections	36	41	36
Complaint Inspections	79	103	99
General Schedule Inspections	1,347	1,311	790
Follow-up Inspections	90	50	31
Other Regulatory Inspections	11	4	10
Fatal Accident Investigations	16	30	20
Safety Violations	3,507	2,471	1,698
Court Cases Completed	41	28	171
Informal Conferences	67	57	24
Penalties Assessed for Violations	$74,445	$73,290	$51,875
Schools for Compliance Officers	16	7	14
State Safety Conference	1	1	1
Speeches and Seminars	5	5	7
Explosive Permits Issued:			
Storage of Explosives	984	1,062	1,113
Small Users of Explosives	403	420	414
Special Use of Explosives	9	4	2
Sale of Explosives	68	69	69
Manufacturers of Explosives	4	6	7
Revenue Collected	$15,030	$16,240	$16,890

VIRGINIA AND METROPOLITAN AREAS
ESTIMATED EMPLOYMENT IN CONTRACT CONSTRUCTION INDUSTRIES
ANNUAL AVERAGES 1977 - 1981

STATE AND AREA	EMPLOYMENT AVERAGE FOR YEAR				
	1981	1980	1979	1978	1977
Virginia					
Construction	115,700	128,300	138,400	130,200	119,000
General Building Contractors	33,500	38,900	45,200	41,000	37,300
Heavy Construction Contractors	20,800	23,800	25,300	24,300	22,600
Special Trade Contractors	61,400	65,600	67,900	64,900	59,100
Bristol Area 1/					
Construction	900	1,100	1,300	1,300	1,100
General Building Contractors	300	300	500	400	400
Heavy Construction Contractors	200	300	300	300	200
Special Trade Contractors	400	500	500	600	500
Lynchburg Metropolitan Area 2/					
Construction	2,800	3,200	3,200	3,300	3,000
General Building Contractors	900	1,100	1,000	1,000	1,000
Heavy Construction Contractors	500	500	500	600	500
Special Trade Contractors	1,400	1,600	1,700	1,700	1,500
Newport News-Hampton Metropolitan Area 3/					
Construction	6,700	7,300	8,300	7,500	6,200
General Building Contractors	2,000	2,600	3,200	2,800	2,000
Heavy Construction Contractors	900	900	1,000	1,000	900
Special Trade Contractors	3,800	3,800	4,100	3,700	3,300
Norfolk-Virginia Beach-Portsmouth Metropolitan Area 4/					
Construction	16,800	17,500	18,100	18,300	16,600
General Building Contractors	4,100	4,100	4,300	4,400	3,800
Heavy Construction Contractors	3,300	4,000	4,200	4,000	3,800
Special Trade Contractors	9,400	9,400	9,600	9,900	9,000
Northern Virginia Area 5/					
Construction	28,500	30,400	31,700	29,600	25,800
General Building Contractors	7,500	7,900	9,200	8,800	7,300
Heavy Construction Contractors	3,500	4,100	4,000	4,000	3,500
Special Trade Contractors	17,500	18,400	18,500	16,800	15,000
Petersburg-Colonial Heights-Hopewell Metropolitan Area 6/					
Construction	2,000	2,900	2,600	2,400	2,300
General Building Contractors	700	1,600	1,100	700	700
Heavy Construction Contractors	400	400	400	400	400
Special Trade Contractors	900	900	1,100	1,300	1,200
Richmond Metropolitan Area 7/					
Construction	17,500	19,000	20,800	19,000	17,100
General Building Contractors	4,200	4,300	5,000	4,600	4,300
Heavy Construction Contractors	2,300	3,000	3,400	3,000	2,400
Special Trade Contractors	11,000	11,700	12,400	11,400	10,400
Roanoke Metropolitan Area 8/					
Construction	4,700	5,500	5,900	5,900	5,700
General Building Contractors	1,200	1,300	1,400	1,300	1,300
Heavy Construction Contractors	1,100	1,400	1,500	1,600	1,500
Special Trade Contractors	2,400	2,800	3,000	3,000	2,900

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the period including the twelfth of the month.

1/ The Bristol, Virginia Metropolitan Area covers the city of Bristol and the counties of Scott and Washington.

2/ The Lynchburg Standard Metropolitan Statistical Area covers the city of Lynchburg and the counties of Amherst, Appomattox, and Campbell.

3/ The Newport News-Hampton Standard Metropolitan Statistical Area covers the cities of Newport News, Hampton, Poquoson, and Williamsburg and the counties of James City, York, and Gloucester.

4/ The Norfolk-Virginia Beach-Portsmouth Standard Metropolitan Statistical Area covers the cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach, Virginia and the county of Currituck, North Carolina.

5/ The Northern Virginia Metropolitan Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park and the counties of Arlington, Fairfax, Loudoun, and Prince William.

6/ The Petersburg-Colonial Heights-Hopewell Standard Metropolitan Statistical Area covers the cities of Petersburg, Colonial Heights, and Hopewell and the counties of Dinwiddie and Prince George.

7/ The Richmond Standard Metropolitan Statistical Area covers the city of Richmond and the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan.

8/ The Roanoke Standard Metropolitan Statistical Area covers the cities of Roanoke and Salem and the counties of Botetourt, Craig, and Roanoke.

DIVISION OF VOLUNTARY SAFETY COMPLIANCE AND TRAINING

The Division of Voluntary Safety Compliance and Training was established in March 1977 as a result of an agreement with the U. S. Department of Labor and as provided for in Sections 7 (c) (1) and 18 (b) of Public Law 91-596, the Occupational Safety and Health Act.

The 7 (c) (1) agreement provides on-site consultation upon request of the employer. In 1981 requests for consultative services increased by 10%. Both the number of safety hazards identified and the number of serious hazards abated increased 78% and 61%, respectively. The increase in all activities was attributed to additional staff. This permitted the extention of training and consultation to additional employers in both the public and private sectors, who were in need of assistance and had not previously received those services.

Promotion of the program continued through 727 in-person visits by staff members to the workplace and participation by them at employer conferences and seminars. The number of employers requesting those services continued to increase, and during the year 30,136 employees were assured a safer workplace with 1,721 serious conditions voluntarily abated, which could have caused death or serious physical harm.

Virginia's private sector incidence rate continued to remain lower than the incidence rate of the nation. The private sector incidence rate for the State decreased from 8.6 in 1979 to 8.1 in 1980. These two factors are indicative of the effectiveness of the program.

The Voluntary Safety Compliance and Training 18 (b) safety program provided employers and employees in both the public and private sectors with 145 safety courses and programs on the recognition and correction of unsafe conditions.

During the year a number of unsafe conditions were identified and corrected. This was accomplished through 333 consultative surveys (51 of which were in the public sector), 338 consultations, and 145 safety related programs. As a result, 45,537 workers were provided a safer workplace.

Information on safety was provided to countless employers/employees who visited the Division's booth at the Virginia Safety Association's annual conference in Richmond. The staff continued to participate in regional safety conferences and also in management seminars. In-service training was provided to State Compliance Safety and Health Officers in their assigned areas.

During the year 2,232 safety films were loaned on request. Through the viewing of these films, 52,452 employers and employees were encouraged to build upon advances already made in their safety and health programs.

In summary, assistance was provided to employers and employees to initiate new and perfect their existing programs. The Division continued to improve on-the-job safety by introducing new training techniques, identifying hazards through on-site consultative surveys, and providing technical assistance in their abatement.

ANALYSIS OF ACTIVITIES OF THE
VOLUNTARY SAFETY COMPLIANCE AND TRAINING DIVISION
1980 & 1981

Item	Accomplishments		Persons Affected	
	1980	1981	1980	1981
Consultative Surveys	303	333	33,220	39,258
Consultative Assistance	*	338	*	340
Safety Hazards Noted	4,015	7,142	27,604	37,831
Serious Hazards Abated	1,066	1,721	20,900	30,136
Conferences (other than during Consultative Surveys)	551	727	564	750
Safety Courses (Construction and Industrial)	36	41	1,162	945
Demonstrations/Safety Talks	86	104	2,281	2,994
Loan of 291 Safety Films by Richmond Office	2,130	2,232	54,600	52,452

* Figures not previously recorded.

OCCUPATIONAL INJURIES AND ILLNESSES, 1980

Incidence rates

The Annual Survey of Occupational Injuries and Illnesses covering 1980 showed an incidence rate of 8.1 cases in Virginia per 100 full-time private-sector workers compared with 8.6 per 100 full-time workers in 1979. The year-to-year annual average employment advance of 1.2 percent represented an addition of 20,000 to the state's private work force of over 1.6 million people. Self-employed individuals and farms averaging fewer than 11 employees are not included in the estimates.

Incidence rates falling further below the statewide average were recorded for the work forces of the trade divisions and the services division, with the financial division retaining its least hazardous standing, at an incidence rate of 2.7. The overall goods-producing sector was associated with the decline of the incidence rate, although the goods-producing construction, mining, and manufacturing divisions continued to have the highest industry division rates, at 15.8, 12.3, and 11.5, respectively.

Number of injuries and illnesses

Down 5 percent from 1979, the number of work-related injuries and illnesses in Virginia in 1980 was 113,000, a number which when distributed over a work force of 1.6 million suggests that there was one stricken worker in every 14. The estimate of nonfatal cases without lost workdays dropped from 63,700 cases in 1979 to 58,900 cases in 1980. Continuing a trend of at least five years' duration, the proportion of such cases to the total fell to 52 percent of all recordable cases in 1980. Recordable cases without lost work time are those in which the worker does not lose a full day away from work, but treatment exceeds first aid. The decrease of these cases, especially evident in the service-producing sector, accounted for most of the all-industry reduction of total cases.

Worktime lost

For the first time since 1972, the full-scale beginning of the state's Occupational Safety and Health survey, a reported reduction occurred in the incidence rate of lost workday cases from 4.0 in 1979 to 3.9 injuries and illnesses in 1980 per 100 worker-years. This change marked a reversal of an upward trend. The reduction centered around manufacturing and construction cases that resulted solely in restricted work activity (the employee was on the job but could not perform all duties of the job).

Despite there being fewer cases, the number of lost workdays rose 3.0 percent from 1979 to 1980, while hours of exposure to the work environment were up only 2 percent. The estimated 853,000 lost workdays of 1980 are equivalent to a loss of about 3,400 worker-years, more than 0.2 percent of the Commonwealth's employed private sector labor force. For the second consecutive year there was an increase in the severity of lost workday cases as measured by the incidence rate for lost workdays. Between 1979 and 1980 this indicator moved from 59.8 to 60.3 days lost per 100 worker-years. In this same period another statistic gauging severity, average lost workdays per lost workday case, edged up from 15 to 16. In 1980 the number of days of restricted work activity rose more than in any year since at least 1975, from 80,400 in 1979 to 92,300 in 1980.

John Langhorne

Supplementary Data System

The Supplementary Data System (SDS) complements the Annual Survey by providing detailed information on the factors associated with accidents and exposures in the workplace. Like the Annual Survey, the SDS program was designed by the Bureau of Labor Statistics (BLS) for the U. S. Labor Department's Occupational Safety and Health Administration, in cooperation with various state agencies undertaking to do the study. Virginia was one of thirty-six participating states in 1980. The Virginia data for this study are obtained from the Employer's First Report of Accident submitted to the Industrial Commission by employers of individuals who receive indemnity compensation for lost wages, after 8 or more days of disability. A research finding underlying the SDS is that first report workers' compensation data are sufficiently accurate for general research and analysis. Under section 65.1-124 of The Virginia Workmen's Compensation Act, the Industrial Commission forwards two copies of all accident reports to the Virginia Department of Labor and Industry. By using data from this source, the SDS program utilizes a potentially valuable stock of information without imposing an additional reporting burden on employers.

Included in the data elements coded are case characteristics, industry and occupation of the affected workers, and indemnity compensation. The factors associated with a work related injury or illness - nature of injury or illness, part of body affected, source of injury or illness, and type of accident or exposure - are coded using the American National Standards Institute (ANSI) "Standard Method of Recording Basic Facts Relating to the Nature and Occurrence of Work Injuries." Since the inception of the SDS program, a considerable number of additional codes used for recording nature of injury or illness and source of injury or illness have been adopted by BLS. Modifications in the nature of injury or illness codes were designed to increase the precision with which illness cases were recorded. Changes in the ANSI source codes were prompted by the lack of codes for certain common sources of injuries and illnesses. Introduced in SDS in 1980 was a code for the associated object or substance, the object with respect to which measures could have been taken to prevent the accident or mitigate the injury. The SDS avails itself of standard federal industry and occupation classification systems.

A set of standard tabulations are generated from the Supplementary Data System. These tabulations deal with the distribution of injuries and illnesses by worker characteristics and work situations, and patterns of indemnity by case characteristics. Each tabulation is compiled for female workers as well as for all workers.

An example of the inferences that can be extracted from the data is that inexperienced workers have disproportionately high injury rates. During the 1979-80 period in Virginia, over 25 percent of compensated injured workers had completed less than 6 months on the job. Also, 25.3 percent were estimated to be under 25 years of age. The training of new workers would appear to be a cornerstone of effective programs reducing risks of occupational injuries.

Summary statistical data is available for cases coded in 1979, 1980, and 1981; and can be obtained by writing the Division of Research & Statistics, P. O. Box 12064, Richmond, VA 23241 or telephoning (804) 786-2384.

OCCUPATIONAL INJURY AND ILLNESS INCIDENCE RATES, BY INDUSTRY, VIRGINIA, 1979 1/ AND 1980

Industry 2/	SIC code 3/	1980 annual average employment (in thousands) 4/	Incidence rates per 100 full-time workers 5/							
			Total cases 6/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
			1979	1980	1979	1980	1979	1980	1979	1980
Total 7/, 9/		1,998.0	8.6	8.1	4.1	3.9	4.6	4.2	58.3	59.2
Private sector 7/		1,646.5	8.6	8.1	4.0	3.9	4.6	4.2	59.8	60.3
Agriculture, forestry, and fishing 7/		33.2	9.7	7.2	5.7	4.0	4.0	3.2	39.2	64.0
Agricultural production	01-02	26.0	10.1	9.9	4.2	4.5	5.9	5.4	49.1	61.3
Agricultural services	07	N/A	10.2	5.5	6.9	3.4	3.3	2.1	36.2	55.8
Goods-producing, nonagricultural private-sector		558.7	12.5	12.4	5.7	5.7	6.7	6.6	91.3	94.2
Mining 8/		23.9	10.6	12.3	8.9	10.1	1.6	2.1	199.1	265.9
Bituminous coal and lignite mining 8/	12	20.6	12.0	14.6	10.3	12.3	1.6	2.2	237.6	329.3
Nonmetallic minerals, except fuels 8/	14	N/A	5.9	4.4	4.1	2.8	1.7	1.5	83.2	58.6
Construction		124.3	16.1	15.8	7.4	7.2	8.7	8.6	126.8	129.4
General building contractors	15	39.7	15.6	14.9	7.3	6.2	8.3	8.7	127.4	130.0
Heavy construction contractors	16	20.3	17.1	17.1	7.3	7.3	9.8	9.8	116.0	129.5
Special trade contractors	17	64.3	16.0	15.7	7.7	7.7	8.3	8.0	131.8	129.0
Manufacturing		410.5	11.4	11.5	5.0	5.1	6.4	6.4	75.0	75.5
Food and kindred products	20	41.8	15.8	15.6	8.4	8.3	7.4	7.3	114.3	116.5
Meat products	201	13.4	18.0	20.0	10.7	11.6	7.3	8.4	160.8	154.2
Preserved fruits and vegetables	203	3.7	-	17.6	-	7.7	-	9.9	-	92.0
Bakery products	205	5.0	11.4	8.6	5.8	4.3	5.6	4.3	87.4	52.7
Beverages	208	5.6	25.3	21.7	12.4	9.7	12.9	12.0	152.7	139.4
Misc. foods and kindred products	209	N/A	8.6	9.0	4.1	4.9	4.5	4.1	45.5	67.3
Textile mill products	22	44.7	8.7	7.8	3.3	3.0	5.4	4.8	46.0	40.8
Weaving mills, synthetics	222	N/A	10.4	7.1	2.7	2.4	7.7	4.7	36.0	25.9
Knitting mills	225	13.7	8.7	9.3	4.2	4.3	4.5	5.0	38.4	43.8
Textile finishing, except wool	226	4.9	8.6	12.9	4.3	5.4	4.3	7.5	62.3	93.0
Apparel and other textile products	23	34.7	6.4	6.8	2.1	2.2	4.3	4.6	35.1	32.2
Men's and boys' furnishings	232	N/A	7.0	8.9	2.6	2.9	4.4	6.0	43.1	30.9
Women's and misses' outerwear	233	N/A	5.5	5.1	1.6	1.6	3.9	3.5	24.2	32.1
Children's outerwear	236	N/A	8.0	3.5	1.8	1.4	6.2	2.1	50.8	23.4
Lumber and wood products	24	23.3	16.0	14.6	7.9	6.8	8.1	7.7	125.0	116.1
Sawmills and planing mills	242	N/A	15.4	15.9	7.7	7.9	7.7	7.9	142.0	125.9
Millwork, plywood, and structural members	243	6.3	15.1	12.3	7.1	6.4	8.0	5.9	95.4	106.8
Furniture and fixtures	25	25.8	12.3	12.2	4.0	4.7	8.3	7.5	58.8	64.1
Household furniture	251	N/A	11.8	10.4	3.6	3.5	8.2	6.9	56.7	53.3
Paper and allied products	26	14.6	11.6	10.5	4.7	3.9	6.9	6.6	75.3	52.1
Printing and publishing	27	21.9	8.5	8.3	3.6	3.8	4.9	4.4	57.0	44.4
Newspapers	271	N/A	7.3	8.0	3.0	3.4	4.3	4.6	53.0	44.2
Commercial printing	275	8.2	10.9	9.6	4.5	4.6	6.4	5.0	73.6	56.0
Chemicals and allied products	28	33.3	4.1	4.0	1.4	1.6	2.7	2.4	21.8	30.8
Rubber and miscellaneous plastics products	30	N/A	12.0	18.7	6.7	9.2	5.3	9.5	135.5	141.0
Miscellaneous plastics products	307	5.7	10.7	22.5	4.5	10.3	6.2	12.2	65.0	138.5
Stone, clay, and glass products	32	12.7	16.3	15.2	8.5	7.7	7.8	7.5	130.9	139.1
Concrete, gypsum, and plaster products	327	7.3	14.1	14.6	8.4	7.2	5.7	7.3	130.4	121.4
Primary metal industries	33	12.2	17.2	13.0	7.7	6.1	9.5	6.9	111.0	113.5
Fabricated metal products	34	20.7	20.1	16.5	8.9	7.7	11.2	8.8	116.5	91.1
Fabricated structural metal products	344	13.1	22.4	17.6	10.4	8.2	12.0	9.4	134.3	102.5
Machinery, except electrical	35	15.3	10.4	14.4	4.6	6.4	5.8	8.0	56.4	71.6
Construction and related machinery	353	4.6	11.9	14.6	6.3	8.6	5.6	6.0	69.4	105.3
Electric and electronic equipment	36	33.2	6.6	5.7	2.8	2.5	3.8	3.2	41.9	28.1
Communication equipment	366	11.4	5.6	5.3	3.3	3.4	2.3	1.9	50.7	44.8
Instruments and related products	38	4.0	6.8	7.5	1.6	1.7	5.2	5.8	23.0	17.8
Services-producing, nonagricultural private-sector		1,054.6	6.2	5.4	2.9	2.7	3.2	2.7	40.0	40.0
Transportation and public utilities		114.8	8.8	8.2	5.2	5.0	3.6	3.2	91.8	95.5
Railroad transportation 8/	40	14.0	10.6	11.0	5.3	6.0	5.3	5.0	80.9	81.6
Local and interurban passenger transit	41	5.6	9.3	8.0	6.5	5.5	2.8	2.5	64.4	61.3
Trucking and warehousing	42	29.5	11.7	11.4	7.4	7.1	4.3	4.3	140.6	153.0
Water transportation	44	6.2	24.8	27.9	12.3	18.6	12.4	9.3	473.7	636.5
Transportation by air	45	10.9	13.1	11.8	8.3	7.2	4.8	4.6	101.8	96.3
Communication	48	28.7	1.8	1.9	1.0	1.0	.8	.9	11.2	18.9

OCCUPATIONAL INJURY AND ILLNESS INCIDENCE RATES, BY INDUSTRY, VIRGINIA, 1979 1/ AND 1980, (continued)

Industry 2/	SIC code 3/	1980 annual average employment (in thousands) 4/	Incidence rates per 100 full-time workers 5/							
			Total cases 6/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
			1979	1980	1979	1980	1979	1980	1979	1980
Wholesale and retail trade		447.3	7.9	6.9	3.5	3.1	4.4	3.8	40.9	46.5
Wholesale trade		104.8	8.6	7.4	4.2	3.8	4.4	3.6	45.4	44.7
Wholesale trade - durable goods	50	63.8	8.1	6.6	3.8	3.1	4.3	3.5	41.6	36.2
Wholesale trade - nondurable goods	51	41.0	9.3	8.9	4.7	5.1	4.6	3.8	51.6	59.6
Retail trade		342.5	7.5	6.6	3.2	2.8	4.3	3.8	39.3	47.1
Building materials and garden supplies	52	13.4	11.3	8.3	5.7	4.0	5.6	4.3	56.3	100.6
General merchandise stores	53	56.1	8.4	7.9	3.3	3.4	5.1	4.5	35.9	44.5
Food stores	54	54.2	8.8	7.8	4.4	3.2	4.4	4.6	85.3	48.7
Automotive dealers and service stations	55	46.5	8.0	6.6	2.8	2.5	5.2	4.1	44.9	48.7
Apparel and accessory stores	56	18.7	-	1.1	-	.4	-	.7	-	9.6
Furniture and home furnishings stores	57	15.6	4.8	5.0	2.5	3.1	2.3	1.9	30.6	37.6
Eating and drinking places	58	94.6	9.2	7.0	3.9	3.0	5.3	4.0	25.3	59.3
Miscellaneous retail	59	43.4	3.4	4.9	1.4	2.0	2.0	2.9	14.0	23.0
Finance, insurance, and real estate		105.6	2.2	2.7	.9	1.5	1.3	1.2	18.3	13.8
Banking	60	31.0	1.1	1.1	.4	.5	.7	.6	6.0	4.0
Credit agencies other than banks	61	12.5	.9	2.4	.5	1.7	.4	.7	2.0	9.6
Insurance carriers	63	19.9	2.5	1.6	.8	.5	1.7	1.1	37.4	6.1
Insurance agents, brokers, and service	64	8.5	1.0	1.0	.4	.5	.6	.5	12.8	2.8
Real estate	65	23.2	4.8	7.0	2.4	4.2	2.4	2.8	30.3	42.9
Services		386.9	4.3	3.5	2.0	1.8	2.3	1.7	26.4	21.1
Hotels and other lodging places	70	27.0	6.6	6.6	2.7	3.0	3.9	3.6	26.9	31.3
Personal services	72	24.7	2.7	2.3	1.3	1.1	1.4	1.2	9.9	13.5
Business services	73	76.0	3.6	2.3	1.7	1.1	1.9	1.2	17.9	7.7
Auto repair, services, and garages	75	12.7	8.6	7.2	4.4	4.2	4.2	3.0	79.2	32.9
Miscellaneous repair services	76	5.7	5.0	4.0	2.7	2.1	2.3	1.9	96.2	25.9
Amusement and recreation services	79	12.9	3.2	5.6	1.8	2.9	1.4	2.7	18.7	24.6
Health Services	80	100.8	6.1	4.8	2.8	2.6	3.3	2.2	34.3	36.3
Legal services	81	9.7	.2	.2	.2	.1	*	.1	8.7	2.1
Educational services	82	20.4	4.0	3.6	1.4	1.4	2.6	2.2	19.7	11.9
Social services	83	19.6	3.3	3.3	1.2	2.0	2.1	1.3	17.0	40.0
Membership organizations	86	40.2	1.6	1.5	1.1	.8	.5	.7	18.1	6.9
Miscellaneous services	89	23.3	1.8	1.1	.8	.6	1.0	.5	24.0	6.5
Government 9/		351.5	8.7	8.4	4.3	4.0	4.4	4.4	50.7	53.9
State		118.5	7.3	7.6	3.1	3.1	4.2	4.5	41.2	48.7
Local		233.0	9.4	8.8	4.9	4.5	4.5	4.3	55.5	56.4

1/ To maintain the comparability of the 1979 survey data with the data published in previous years and with 1980, a statistical method was developed for generating the estimates to represent the small nonfarm employers in low-risk industries who were not surveyed. The estimating procedure involved averaging the data reported by small employers for the 1975, 1976, and 1977 annual surveys.

2/ Totals for divisions and 2- and 3- digit SIC codes include data for industries not shown separately.

3/ Standard Industrial Classification Manual, 1972 Edition, 1977 Supplement.

4/ Annual average employment for nonagricultural industries is based on the employment and earnings survey conducted by the Bureau of Labor Statistics, in cooperation with the State agencies. The employment estimate for the services division is adjusted to exclude the employment for (a) the nonfarm portion of agricultural services and (b) nonclassifiable establishments. Annual average employment for the agriculture, forestry, and fishing division is a composite of data from the Virginia Unemployment Insurance Program and estimates of farm workers engaged in agricultural production provided by the U. S. Department of Agriculture. The agricultural production employment estimate, as originally published by the Department of Agriculture, is adjusted to exclude employment on farms with fewer than 11 employees.

5/ The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers, and were calculated as: (N/EH) X 200,000, where
N = number of injuries and illness or lost workdays
EH = total hours worked by all employees during calendar year
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year.)

6/ Fatalities are included. Because of rounding, the fatality rate is not reflected by the difference between the total and the sum of the rates for lost workday cases and nonfatal cases without lost workdays.

7/ Farms with fewer than 11 employees are excluded.

8/ The Mine Safety and Health Administration, U. S. Department of Labor, provided data for coal and lignite mining (SIC 12) and metal and nonmetal mining (SIC 10 and 14). The Federal Railroad Administration, U. S. Department of Transportation, provided railroad data (SIC 40).

9/ Federal government employees are excluded. They are covered in a separate reporting system.

NOTE: Dashes indicate data that do not meet publication guidelines.
n/a = data not available.
* = incidence rate less than .05
SOURCES: The Virginia Department of Labor and Industry in cooperation with the U. S. Department of Labor, Bureau of Labor Statistics.

DIVISION OF

RESEARCH AND STATISTICS

The Division of Research and Statistics is charged primarily with the functions of collecting, presenting, analyzing, and interpreting statistical data in various economic fields.

Industrial employment information on a national, state, and area basis is provided from a cooperative Federal-State Employment Statistics Program. Full and complete statistics of the volume of and change in employment, as indicated by the number of persons employed in the State and eight of the larger metropolitan areas, are published each month. These data are maintained on a continuous basis and reflect industry trends as well as cyclical and seasonal fluctuations. Average weekly hours and average hourly and weekly earnings are also prepared for the manufacturing industries. To better measure current earnings available for spending, a series of spendable weekly earnings is developed. Monthly and yearly analyses are made of the industry changes. For two of the metropolitan areas, union scales of wages in the building trades are published quarterly. This study includes data for journeymen and helper classifications.

This agency in cooperation with the U. S. Department of Labor provides statistics regarding the incidence and causes of occupational injuries and illnesses; and provides the information needed to effectively manage, administer, control, and enforce occupational safety and health standards including scheduling of inspections.

A survey of retail food prices is conducted monthly for the Norfolk-Virginia Beach-Portsmouth, Northern Virginia, and the Richmond metropolitan areas. A report for each area is compiled reflecting the price change in the retail cost of numerous items of food. Also, a market basket is published which depicts the cost of a fixed quantity of selected basic foods.

Statistical data pertaining to coal mining and quarry operations in Virginia are collected and released annually. Factual information such as tonnage, coal resources, employment, salaries and wages, methods of mining, and injury and fatality rates are developed. In addition, a summary of oil and gas activities is compiled. A review is published quarterly of fatalities occurring in coal mines and quarries, which also includes news and information relative to safety in coal mining and quarrying.

A survey of manufactures is conducted annually for Virginia and five of the larger metropolitan areas which presents important economic indicators such as employment, salaries and wages, value added by manufactures, capital expenditures and export market information.

Apprentice and system or firm data for the Virginia Apprenticeship Program are processed into machine tabulations, providing certain selected data periodically on a State and National level.

The other Divisions of the Department are assisted in planning and compiling statistics, and in the development of working forms. The Department's Annual Report is assembled and published by this Division. Statistical analyses for industrial information are furnished to business, research organizations, governmental agencies, economists, libraries and others.

Periodic tabulations needed by the different Divisions are prepared by the Department of Management Analysis and Systems Development but coordinated by this Division.

The printing section under this Division is responsible for all of the offset duplicating work of the Department, e.g., books, circulars, posters, releases, forms, etc.

COMMONWEALTH OF VIRGINIA

A widely diversified industrial structure helped Virginia and her people weather a year of economic retrenchment. In many areas growth was recorded but at a much reduced rate. During 1981 the Civilian Labor Force averaged 2,600,000 - a plus 40,000 over the year. While the average number of persons employed rose 10,000 to 2,442,000, the count of unemployed rose by 30,000 to 158,000. The unemployment rate for Virginia was also up from 1980's average of 5.0 percent to 6.1 percent. While economic patterns of the State and the nation were similiar, the unemployment rate of Virginia was well below the national rate of 7.6 percent. With the goods-producing industries (manufacturing, mining, and construction) posting over-the-year declines in employment increases in the service-producing segments, (trade, finance, services, government, and transportation and public utilities) collectively outweighed the reductions and the number of workers on nonfarm payrolls increased by 2,900 over the year to average 2,160,100 for 1981.

The largest over-the-year change in employment occurred in the construction industry. During the summer of 1979 the number of construction workers in the State peaked at 151,200 and for the same year averaged 138,400. Since that period construction has experienced deterioration at a rather steady pace. The 1979-1980 decline was 10,100 or 7.3 percent, while the 1980-1981 drop was 12,600 or 9.8 percent. Residential construction has been the hardest hit of the three major divisions of construction. For the entire year, builders were plagued by high interest rates and would-be home owners either were unwilling to become obligated to big mortgage payments or unable to afford the price of a new home in the first place. While there remains a demand for residential dwellings, nationally housing starts during 1981 were the lowest since 1966. In Virginia between 1980 and 1981 the number of housing units authorized for construction decreased more than twenty percent. Spending for additions and repair work to existing dwellings was below what contractors had hoped for and reductions in workers were recorded. Road building was also curtailed as fewer dollars were available for many projects. Unfortunately, unless interest rates decline substantially, construction's outlook will continue to be bleak.

Virginia's miners for the first quarter of 1981 were operating at slightly below the levels of the fourth quarter of 1980. During the second quarter of the year a lengthy 73-day coal-mining strike occurred and employment declined appreciably. After settlement, worker totals began to pick up and by the fourth quarter of 1981 averaged 23,700 or approximately 1,100 ahead of the average for the first three months of the year. If the strike had not taken place, the employment average for 1981 would have exceeded last year. During the labor dispute stockpiles of coal dwindled and by year-end stocks had not been fully rebuilt. The basic demand for coal appears to be growing, although at a much slower rate than the robust growth of the last decade.

Manufacturing firms in Virginia comprised a little better than nineteen percent of nonagricultural employment. This was about three percent less than the nation's ratio of 22 percent. During both 1979 and 1980 employment annually averaged 413,800 - peak years. In 1981 manufacturers did not sustain these totals and a decline of 1,900 or 4.6 percent was posted. Manufacturing employment fluctuated from a high of 416,100 in September to a low of 408,500 in December. Among durable goods producers average employment declined from 189,100 a year ago to

ESTIMATED EMPLOYMENT IN VIRGINIA NONAGRICULTURAL ESTABLISHMENTS, BY MAJOR INDUSTRY DIVISIONS
ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL 1/	2,160.1	2,157.2	2,115.0	2,033.5	1,930.4	11.9
MANUFACTURING	411.9	413.8	413.8	409.4	400.8	2.8
Durable Goods	188.9	189.1	190.8	187.9	179.9	5.0
Lumber and Wood Products	22.1	22.2	24.6	24.0	22.6	- 2.2
Millwork, Plywood and Structural Members	5.8	5.5	6.3	6.2	6.1	- 4.9
Wood Containers	1.7	1.8	2.0	1.7	1.6	6.3
Wood Buildings and Mobile Homes	2.3	2.5	3.2	3.1	2.8	17.9
Miscellaneous Wood Products	2.3	2.4	2.4	2.2	2.4	- 4.2
Furniture and Fixtures	25.6	25.8	27.3	27.8	26.0	- 1.5
Household and Office Furniture	24.2	24.5	25.9	26.2	24.4	- .8
Stone, Clay and Glass Products	12.8	13.0	13.5	12.9	12.7	- .8
Structural Clay Products	.7	.8	1.0	1.0	.9	- 22.2
Concrete, Gypsum, and Plaster Products	6.9	7.1	7.5	7.2	6.8	1.5
Glass and Glass Products	2.1	2.0	1.7	1.5	1.5	40.0
Primary Metal Industries	11.8	12.6	13.6	13.0	12.4	- 4.8
Fabricated Metal Products	20.4	20.3	20.5	19.7	18.0	13.3
Fabricated Structural Metal Products	12.6	13.1	13.1	12.6	12.2	3.3
Machinery, except Electrical	15.0	15.4	15.1	14.5	13.8	8.7
Construction and Related Machinery	4.8	5.1	4.9	4.7	4.4	9.1
Special Industry Machinery	1.9	1.8	2.3	2.4	2.4	- 20.8
Refrigeration and Service Machinery	2.0	1.9	2.1	2.1	2.0	0
Electric and Electronic Equipment	35.9	35.2	33.8	32.0	30.9	16.2
Communication Equipment	9.9	10.4	11.0	10.4	8.7	13.8
Electronic Components and Accessories	5.7	5.9	5.5	5.4	5.7	0
Transportation Equipment	38.6	38.2	35.4	36.8	36.3	6.3
Instruments and Related Products	4.1	3.7	3.6	3.5	3.4	20.6
Miscellaneous Manufacturing Industries	2.7	2.7	3.4	3.7	3.8	28.9
Nondurable Goods	223.0	224.7	223.0	221.5	220.9	1.0
Food and Kindred Products	39.8	41.0	40.7	39.7	39.4	1.0
Meat Products	13.6	14.0	13.3	12.1	12.1	12.4
Dairy Products	2.5	2.4	2.5	2.6	2.7	- 7.4
Preservied Fruits and Vegetables	3.6	3.9	4.3	4.1	3.6	0
Bakery Products	4.7	4.8	5.0	5.3	5.5	- 14.5
Beverages	5.4	5.4	5.5	5.2	5.2	3.8
Tobacco Manufactures	18.8	17.7	16.5	16.0	16.0	17.5
Cigarettes	16.1	15.1	14.0	13.2	12.8	25.8
Cigars and Chewing and Smoking Tobacco	.6	.4	.4	.4	.5	20.0
Tobacco Stemming and Redrying	2.2	2.2	2.1	2.4	2.7	- 18.5
Textile Mill Products	44.3	44.6	44.5	44.7	44.7	- .9
Weaving Mills, Cotton, Synthetics and Wool	19.2	19.5	19.0	18.5	19.9	- 3.5
Narrow Fabric Mills	.9	.9	1.3	1.5	1.4	- 35.7
Knitting Mills	14.1	13.8	12.8	12.8	12.3	14.6
Textile Finishing, except Wool	4.8	5.1	5.3	5.7	5.2	- 7.7
Yarn and Thread Mills	2.4	2.5	3.0	3.2	3.2	- 25.0
Miscellaneous Textile Goods	1.2	1.2	1.4	1.4	1.4	- 14.3
Apparel and Other Textile Products	32.6	34.3	34.2	36.4	36.9	- 11.7
Men's and Boys' Suits, Coats and Furnishings	11.4	12.8	13.2	14.5	14.5	- 21.4
Women's and Children's Outerwear and Undergarments	17.9	18.0	17.5	18.1	18.5	- 3.2
Miscellaneous Fabricated Textile Products	1.6	1.7	1.7	1.7	1.8	- 11.1
Paper and Allied Products	15.0	15.0	14.5	14.1	14.0	7.1
Pulp, Paper and Paperboard Mills	8.0	8.0	7.6	7.4	7.5	6.7
Miscellaneous Converted Paper and Paperboard Products, Containers and Boxes	6.7	6.6	6.4	6.1	5.9	13.6
Miscellaneous Converted Paper Products	2.8	2.8	2.9	2.7	2.5	12.0
Paperboard Containers and Boxes	3.9	3.8	[illegible]	3.4	3.4	14.7
Printing and Publishing	22.7	22.4	21.2	19.9	18.8	20.7
Newspapers and Periodicals	8.2	8.4	8.0	7.7	7.5	9.3
Commercial Printing	9.2	8.8	8.1	7.5	6.7	37.3
Chemicals and Allied Products	33.8	34.2	34.7	33.9	34.0	- .6
Industrial Inorganic Chemicals	.9	.9	.8	1.5	1.9	- 52.6
Plastics Materials and Synthetics	20.8	21.4	21.7	20.7	20.9	- .5
Drugs	3.2	3.0	2.7	2.6	2.3	39.1
Agricultural Chemicals	1.4	1.4	1.7	1.7	1.8	- 22.2
Miscellaneous Chemical Products	4.2	3.8	3.4	3.1	3.0	40.0
Petroleum, Rubber and Miscellaneous Plastics Products	12.3	11.9	12.9	12.8	13.1	- 6.1
Miscellaneous Plastics Products	6.2	5.8	6.1	6.1	6.7	- 7.5
Rubber and Rubber Products	5.8	5.7	6.4	6.4	6.2	- 6.5
Leather and Leather Products	3.6	3.6	3.8	4.0	4.0	- 10.0
NONMANUFACTURING	1,784.1	1,743.4	1,701.2	1,624.1	1,529.6	16.6
Mining	21.4	22.7	23.3	20.5	22.0	- 2.7
Bituminous Coal and Lignite Mining	18.5	19.4	19.9	17.2	19.1	- 3.1
Construction	115.7	128.3	138.4	130.2	119.0	- 2.8
General Building Contractors	33.5	38.9	45.2	41.0	37.3	- 10.2
Heavy Construction Contractors	20.8	23.8	25.3	24.3	22.6	- 8.0
Special Trade Contractors	61.4	65.6	67.9	64.9	59.1	3.9

ESTIMATED EMPLOYMENT IN VIRGINIA NONAGRICULTURAL ESTABLISHMENTS, (CONTINUED)

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
Transportation and Public Utilities	116.6	115.8	114.2	107.6	105.9	10.1
Railroad Transportation	13.4	14.0	14.6	12.5	15.1	- 11.2
Local & Interurban Passenger Transit	5.7	5.9	5.8	5.9	6.5	- 12.3
Trucking and Warehousing	27.4	28.2	29.9	28.4	26.0	5.4
Water Transportation	5.2	5.1	5.3	5.6	5.2	0
Transportation by Air	11.7	12.1	11.8	11.0	10.8	8.3
Pipelines, except Natural Gas	.1	.1	.2	.2	.1	0
Transportation Services	3.2	3.4	3.2	2.6	2.3	39.1
Communication	32.5	30.6	27.7	26.3	25.4	28.0
Electric, Gas & Sanitary Services	17.5	16.4	15.7	15.1	14.5	20.7
Wholesale & Retail Trade	462.8	451.2	443.9	428.1	405.6	14.1
Wholesale Trade	107.6	105.3	101.9	96.8	91.2	18.0
Wholesale Trade-Durable Goods	65.7	64.4	62.3	58.2	53.7	22.3
Wholesale Trade-Nondurable Goods	41.9	40.9	39.6	38.6	37.5	11.7
Retail Trade	355.2	345.9	342.0	331.3	314.4	13.0
Building Materials and Garden Supplies	13.6	13.4	13.7	13.4	13.0	4.6
General Merchandise Stores	57.9	56.6	57.8	58.8	57.3	1.0
Food Stores	56.9	55.6	52.1	49.1	46.4	22.6
Automotive Dealers & Service Stations	43.5	44.3	47.5	49.2	47.5	- 8.4
Apparel & Accessory Stores	19.8	19.4	19.1	18.4	17.8	11.2
Furniture & Home Furnishings Stores	17.2	16.6	16.8	16.2	15.5	11.0
Eating and Drinking Places	100.3	94.4	91.6	85.5	78.4	27.9
Miscellaneous Retail	45.9	45.6	43.4	40.7	38.5	19.2
Finance, Insurance & Real Estate	106.2	105.9	104.4	97.1	91.7	15.8
Banking	34.0	33.4	31.4	28.2	26.7	27.3
Credit Agencies Other Than Banks	11.9	12.2	12.2	11.2	9.8	21.4
Security, Commodity Brokers & Services	2.6	2.3	2.0	1.9	1.9	36.8
Insurance Carriers	20.2	20.1	19.6	19.3	18.7	8.0
Insurance Agents, Brokers & Service	8.4	8.4	8.1	7.3	6.8	23.5
Real Estate	26.5	26.4	25.6	23.3	22.4	18.3
Combination of Real Estate, Insurance, Etc.	.1	.2	.2	.4	.5	- 80.0
Holding & Other Investment Offices			5.3	5.5	4.5	
Services	415.8	408.3	383.5	357.9	331.8	25.3
Hotels & Other Lodging Places	32.2	30.4	29.3	28.2	26.8	20.1
Personal Services	24.6	24.5	24.4	23.7	22.9	7.4
Business Services	81.3	84.3	76.0	68.2	60.3	34.8
Auto Repair, Services & Garages	11.6	12.0	12.6	11.2	9.5	22.1
Miscellaneous Repair Services	5.4	6.0	5.7	5.2	4.6	17.4
Motion Pictures	2.9	3.0	2.9	2.9	2.8	3.6
Amusement & Recreation Services	16.0	14.5	13.9	13.4	[illegible]	24.0
Health Services	109.8	[illegible]	98.8	93.4	[illegible]	23.0
Legal Services	10.6	10.3	[illegible]	9.8	8.0	32.5
Educational Services	[illegible]	21.0	[illegible]	19.0	[illegible]	22.7
Social Services	21.0	20.1	18.4	15.7	[illegible]	46.9
Museums, Botanical, Zoological Gardens	2.1	2.1	2.2	1.9	[illegible]	16.7
Membership Organizations	38.9	41.2	39.0	[illegible]	36.3	7.2
Miscellaneous Services	28.8	26.2	23.4	[illegible]	17.8	61.8
Agricultural Services	7.1	7.5	7.1	6.6	5.8	22.4
Government	509.6	511.2	493.5	482.7	453.6	12.3
Federal Government	156.8	156.4	153.4	153.8	151.7	3.4
Department of Defense	109.7	106.3	105.4	106.0	105.6	3.9
Defense Medical & V. A. Hospitals	6.9	7.0	6.5	6.6	6.3	9.5
Postal Service	13.9	13.9	13.6	13.4	13.5	3.0
Other Agencies	26.3	29.2	27.9	27.8	26.3	0
State & Local Government	352.8	354.8	340.[illegible]	328.9	301.9	16.9
State Government	123.8	121.4	117.8	115.4	107.7	14.9
Education	56.0	52.7	50.0	48.4	45.0	24.4
General	67.8	68.7	67.8	67.0	62.7	8.1
Local Government	229.0	233.4	222.3	213.5	194.2	17.9
Education	136.2	132.4	127.7	123.2	121.7	11.9
General	92.7	101.0	94.6	90.3	72.5	27.9

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to first quarter 1981 benchmark levels. Industrial classification structure in accordance with the 1972 Standard Industrial Classification Manual.

Note: Detail may not add to totals due to rounding.

188,900 in 1981. Companies that make electric and electronic equipment; fabricated metal products; and professional and scientific instruments were on the upswing in worker totals. Also, the transportation equipment segment rose because of increases in shipbuilding and repair work. This overshadowed layoffs by auto and truck factories. Durable goods producers that rely heavily on building activity saw an erosion of workers. Most seriously affected were the following divisions: lumber and wood products; stone, clay, and glass products; and furniture and fixtures. Primary metal foundries, that supply the auto industry, suffered losses as new orders were withheld.

Nondurable goods producers were subject to more economic adversity than their counterpart (durable goods) in manufacturing. Most of the lost ground was in the four largest sectors: textile mills, apparel plants, chemical producers, and food processors. The last half of the year, particularly the last quarter, was a down period for all of these industries, except food. The seasonal processing of summer and fall fruits and vegetables was in progress and temporary workers were on payrolls. Textile and apparel plants attributed portions of their slowdown to the slumping housing and auto industries as numerous producers in Virginia make household furnishings, webbing for seat belts, and fabrics for car interiors. Chemical plants engaged in making synthetic fibers for both textiles and tires had business downturns for the year. However, some segments moved ahead. In recent years several cigarette plants moved out of the State or closed but the tobacco industry has continued to grow. Likewise has the printing and publishing segment been a growth area. Rubber and plastics products producers also upped workforces over 1980 levels.

Virginia's factory production workers, averaging 316,400 in 1981, were down 2,100 from 1980. Yearly average weekly earnings at $269.68 were up over the year $25.23. With every major segment recording increases in hourly earnings, the 1981 average of $6.81 represented a yearly increase of 59 cents. The average workweek lengthened three-tenths of an hour to 39.6 hours.

Since 1977 wholesale and retail trade establishments have expanded staffs every year. While the same seasonal patterns prevailed, during both 1980 and 1981 the pace of growth for the industry slowed. Consumer caution in response to a slowing economy was felt in most stores and shops. High interest rates prevented the buying of many "big ticket" items that were not a necessity. Merchants had to devise many cost-cutting measures to compensate for the slowness in spending. One example was the centralization of checkout areas in department stores that could be managed by fewer employees. Auto dealers continued to have problems that even rebates could not solve. The number of fast-food stores continued to grow and restaurant employment registered the greatest amount of yearly increase. Even with December 1981 recording the all-time high in employment (483,100), it should be noted that the 1981 pre-Christmas hirings were much less than normal. Although the outlook for 1982 does not appear to be the brightest, the opening of new shopping centers of varying sizes and costs and the expansions to existing ones in the more densely populated areas were expressions of confidence in the future.

Over the past five years the services segment of the economy has been the most vigorous in expanding payrolls. Demand for all types of services has accelerated and 84,000 persons have been added to payrolls of service-related businesses between 1977 and 1981. Tourism

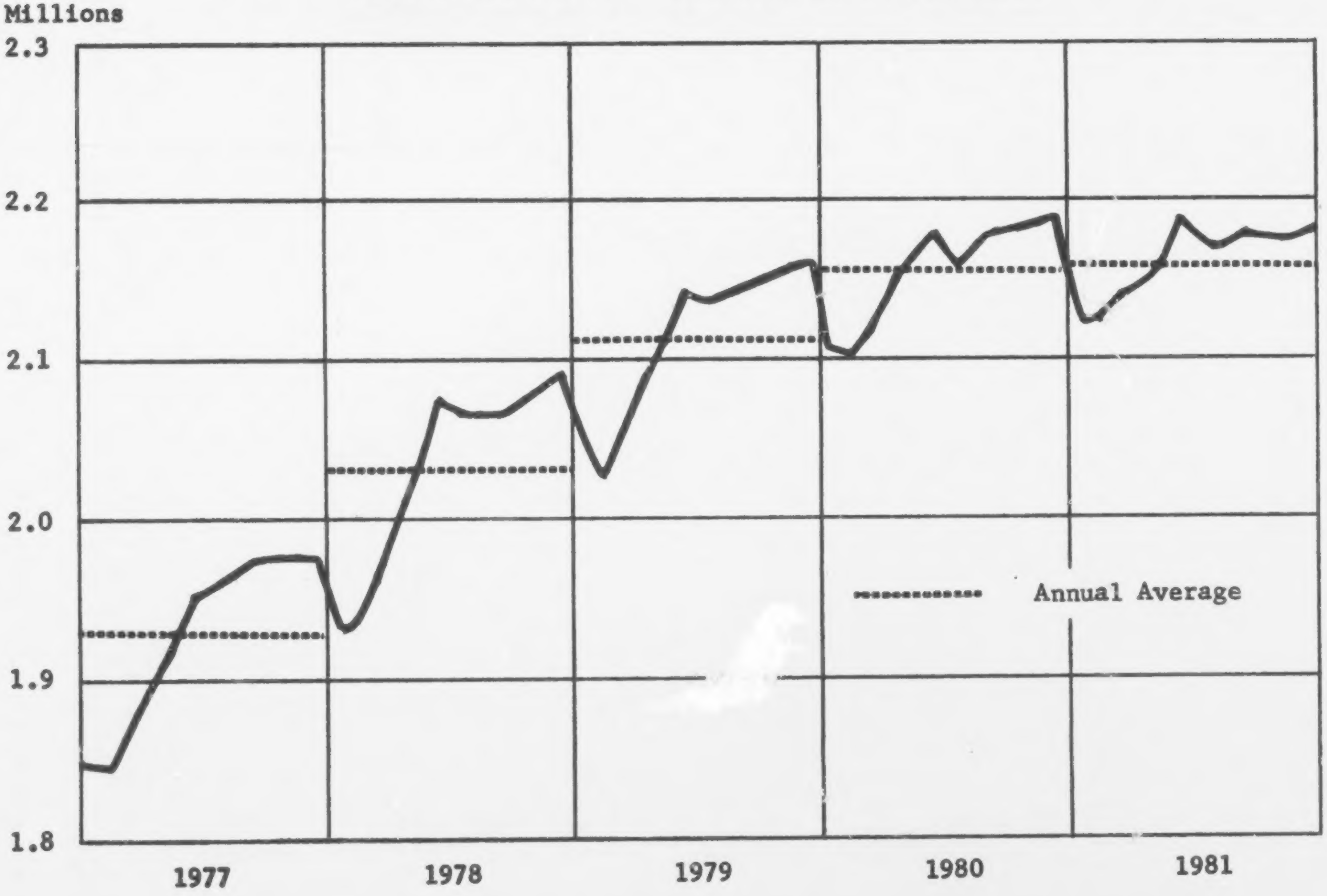
ESTIMATED FEMALE EMPLOYMENT IN NONAGRICULTURAL INDUSTRIES IN VIRGINIA ANNUAL AVERAGES 1978 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees) 1981	1980	1979	1978	Percent Change From 1978 - 1981
NONAGRICULTURAL 1/	926.1	903.9	872.9	842.9	9.9
MANUFACTURING	146.6	146.8	146.1	144.7	1.3
Durable Goods	47.0	46.1	46.1	44.3	6.1
Lumber and Wood Products	3.9	4.0	4.5	4.1	- 4.9
Furniture and Fixtures	9.3	9.0	9.1	9.1	2.2
Stone, Clay, and Glass Products	1.6	1.6	1.5	1.4	14.3
Primary Metal Industries	1.8	1.9	2.0	1.9	- 5.3
Fabricated Metal Products	3.6	3.5	3.5	3.3	9.1
Machinery, except Electrical	2.4	2.4	2.4	2.2	9.1
Electric and Electronic Equipment	16.0	15.5	15.2	14.9	7.4
Transportation Equipment	5.5	5.5	5.1	4.7	17.0
Instruments and Related Products	1.8	1.6	1.5	1.5	20.0
Miscellaneous Manufacturing Industries	1.2	1.1	1.3	1.2	0
Nondurable Goods	99.7	100.7	100.0	100.4	- 0.7
Food and Kindred Products	15.1	15.4	14.9	14.9	1.3
Tobacco Manufactures	6.1	5.8	5.4	5.3	15.1
Textile Mill Products	24.0	24.2	23.9	23.8	.8
Apparel and Other Textile Products	29.5	30.7	31.2	32.5	- 9.2
Paper and Allied Products	2.7	2.7	2.5	2.3	17.4
Printing and Publishing	8.0	7.8	7.5	6.9	15.9
Chemicals and Allied Products	8.9	8.8	8.9	8.9	0
Petroleum, Rubber and Misc. Plastics Prod.	2.7	2.6	2.9	2.9	- 6.9
Leather and Leather Products	2.6	2.7	2.8	2.9	- 10.3
NONMANUFACTURING	779.4	757.1	726.8	698.2	11.6
Mining	.9	.8	.6	.5	80.0
Bituminous Coal and Lignite Mining	.8	.7	.5	.4	100.0
Construction	9.3	8.6	8.5	8.0	16.3
Transportation and Public Utilities	30.4	28.8	27.2	25.7	18.3
Railroad Transportation	1.7	1.8	1.9	1.6	6.3
Trucking and Warehousing	3.2	3.1	3.0	3.0	6.7
Transportation by Air	4.4	4.3	4.2	3.9	12.8
Communication	15.4	14.4	13.4	12.6	22.2
Electric, Gas and Sanitary Services	3.8	3.5	3.3	3.0	26.7
Wholesale and Retail Trade	207.6	198.1	186.2	179.4	15.7
Wholesale Trade	26.1	23.9	21.0	19.2	35.9
Wholesale Trade-Durable Goods	15.7	14.5	12.8	11.6	35.3
Wholesale Trade-Nondurable Goods	10.4	9.4	8.2	7.6	36.8
Retail Trade	181.5	174.2	165.2	160.2	13.3
General Merchandise Stores	41.2	40.2	39.7	40.0	3.0
Department Stores	32.3	30.3	30.0	30.8	4.9
Variety Stores	7.8	9.9	8.6	7.4	5.4
Food Stores	23.5	23.0	20.8	20.0	17.5
Automotive Dealers and Service Stations	8.7	8.4	8.5	8.6	1.2
Furniture and Home Furnishings Stores	5.8	5.4	5.2	4.7	23.4
Miscellaneous Retail	27.2	26.1	24.2	23.0	18.3
Finance, Insurance, and Real Estate	61.9	60.7	58.9	54.3	14.0
Banking	24.5	24.1	22.7	20.1	21.9
Insurance Carriers	11.2	11.0	10.8	10.4	7.7
Real Estate	10.3	9.1	8.6	7.9	30.4
Services	233.8	224.0	210.1	201.8	15.9
Personal Services	15.3	14.8	12.8	15.2	.7
Business Services	33.7	33.2	32.0	30.7	9.8
Auto and Miscellaneous Repair Services	3.9	3.7	3.6	3.5	11.4
Health Services	90.3	85.0	79.1	76.0	18.8
Government	235.5	236.1	235.3	228.5	3.1
Federal Government	55.2	54.2	52.8	52.3	5.5
State and Local Government	180.4	181.9	182.5	176.2	2.4
State Government	59.3	60.6	60.8	58.7	1.0
Local Government	121.0	121.3	121.7	117.5	3.0

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure is in accordance with the 1972 Standard Industrial Classification Manual.

Note: Detail may not add to totals due to rounding.

NONAGRICULTURAL EMPLOYMENT IN VIRGINIA



ESTIMATED NUMBER OF PRODUCTION WORKERS, HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES IN VIRGINIA

ANNUAL AVERAGES 1980 & 1981

	PRODUCTION WORKERS (In Thousands)		ANNUAL AVERAGES					
			AVERAGE WEEKLY EARNINGS		AVERAGE WEEKLY HOURS		AVERAGE WEEKLY EARNINGS	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	316.4	318.5	$269.68	$244.45	39.6	39.3	$ 6.81	$ 6.22
Durable Goods	143.2	143.6	274.72	248.52	40.4	39.7	6.80	6.26
Lumber and Wood Products	18.8	19.0	196.35	175.41	38.2	37.4	5.14	4.69
Furniture and Fixtures	21.7	21.8	177.79	163.78	38.4	38.0	4.63	4.31
Household and Office Furniture	20.6	20.8	177.33	162.11	38.3	37.7	4.63	4.30
Stone, Clay and Glass Products	10.0	10.2	252.50	229.94	40.4	40.2	6.25	5.72
Structural Clay Products	.6	.7	219.63	200.04	38.6	39.3	5.69	5.09
Glass and Glass Products	1.7	1.6	263.60	244.40	40.0	40.0	6.59	6.11
Primary Metal Industries	6.6	7.1	348.60	306.82	40.3	38.4	8.65	7.99
Fabricated Metal Products	13.7	13.6	331.20	303.55	41.4	40.8	8.00	7.44
Fabricated Structural Metal Products	7.4	7.7	318.61	300.77	42.2	41.6	7.55	7.23
Machinery, except Electrical	10.4	10.8	295.40	265.17	40.3	40.3	7.33	6.58
Construction and Related Machinery	2.9	3.1	293.38	262.64	39.7	39.2	7.39	6.70
Special Industry Machinery	1.2	1.2	334.46	291.95	40.2	39.4	8.32	7.41
Refrigeration and Service Machinery	1.3	1.2	306.68	277.10	43.5	42.5	7.05	6.52
Electric and Electronic Equipment	23.9	23.6	280.30	252.19	40.1	39.9	6.99	6.32
Communication Equipment	6.3	6.7	300.99	273.20	39.5	40.0	7.62	6.83
Transportation Equipment	33.1	32.8	- [1]	- [1]	- [1]	- [1]	- [1]	- [1]
Instruments and Related Products	2.8	2.5	187.50	210.14	38.5	39.5	4.87 [2]	5.32
Miscellaneous Manufacturing Industries	2.2	2.2	217.36	201.32	38.2	37.7	5.69	5.34
Nondurable Goods	173.1	174.9	267.93	241.64	39.0	39.1	6.87	6.18
Food and Kindred Products	36.0	30.7	240.38	216.02	38.4	37.7	6.26	5.73
Tobacco Manufactures	13.4	12.9	394.25	363.61	37.8	38.6	10.43	9.42
Cigarettes	11.4	11.0	421.01	388.55	38.1	38.7	11.05	10.04
Textile Mill Products	39.5	39.7	214.63	201.90	39.6	40.3	5.42	5.01
Weaving Mills, Cotton, Synthetics and Wool	16.9	17.2	237.48	222.49	41.3	41.9	5.75	5.31
Knitting Mills	13.0	12.8	187.88	176.78	37.5	38.1	5.01	4.64
Yarn and Thread Mills	2.2	2.2	193.02	172.94	41.6	40.5	4.64	4.27
Miscellaneous Textile Goods	1.0	1.0	213.89	209.82	38.4	40.9	5.57	5.13
Apparel and Other Textile Products	29.3	30.9	161.19	149.14	35.9	36.2	4.49	4.12
Men's and Boys' Suits, Coats and Furnishings	10.4	11.6	164.57	154.40	34.5	36.5	4.77	4.23
Women's and Children's Outerwear and Undergarments	16.1	16.2	154.37	144.18	35.9	35.6	4.30	4.05
Paper and Allied Products	11.[illegible]	11.5	356.15	327.17	42.5	42.6	8.38	7.68
Pulp, Paper and Paperboard Mills	5.7	5.6	427.39	394.26	43.7	44.2	9.78	8.92
Miscellaneous Converted Paper and Paperboard Products, Containers	5.7	5.6	284.83	259.94	41.4	41.0	6.88	6.34
Printing and Publishing	13.9	13.3	318.21	285.35	38.2	38.2	8.33	7.47
Newspapers and Periodicals	3.0	3.0	258.38	254.14	33.6	35.2	7.69	7.22
Chemicals and Allied Products	22.8	23.3	362.37	323.42	41.7	41.2	8.69	7.85
Plastics Materials and Synthetics	15.1	15.6	377.58	329.62	42.0	41.1	8.99	8.02
Agricultural Chemicals	.7	.8	254.59	227.28	40.8	41.1	6.24	5.53
Petroleum, Rubber and Miscellaneous Plastics Products	9.4	9.3	- [1]	- [1]	- [1]	- [1]	- [1]	- [1]
Leather and Leather Products	3.2	3.3	145.39	135.04	36.9	37.1	3.94	3.64

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[1] Not available.

[2] Not comparable with data for prior years.

The industrial classification structure is in accordance with the 1972 Standard Industrial Classification Manual.

The hours and earnings series are based on reports of gross payroll and corresponding paid man-hours for production workers in the manufacturing industries. Average earnings are computed on a gross basis reflecting not only the changes in basic hourly and incentive wage rates, but such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are not scheduled hours, but represent the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

NOTE: Detail may not add to totals because of rounding.

greatly influenced services' overall economic performance. 1981 was considered a good year for Virginia's travel business, which recorded some over-the-year growth. Travel to the eastern part of the State was considerably larger than to the western portion because of the much heavier volume of traffic on interstate highways and the more numerous historical and recreational attractions. Attendance to State parks was up because of the opening of new parks and improvements to already available facilities. Increased health services and legal services were in evidence. Employment totals would have been even larger if requests for business services had not diminished. Advances in medical, communication, and financial know-how are expected to keep employment on the uptrend, but the rapid growth experienced by this industry during the seventies has been predicted to abate some during the eighties.

The transportation and public utilities division had an increase in average employment and stood at 116,600 for 1981. Trends were mixed. Trucking and warehousing firms had fewer goods to haul and store. When the air controllers left their jobs, airlines made cutbacks. The coal-miners' strike lowered railroad employment as coal supplies dwindled. Despite these reversals, communication employment moved forward. Increased need for electric, gas, and sanitary services pushed employment up in this group. In spite of worldwide economic conditions, the Hampton Roads Port performed well. For the second year in a row Hampton Roads ranked as the nation's leading port for handling foreign tonnage trade. A new multi-million dollar pier in Portsmouth will enable even more goods to flow in and out of the port.

The pace of growth in the financial community slowed during 1981; yet, employment was up by 300 to 106,200. Woes of the construction industry extended over into many areas of the finance division as high interest rates continued to be a deterrent to businesses. Mergers of savings and loan establishments were numerous. Banks expanded services and recorded the largest amount of employment increase in the industry.

Over twenty-three percent of nonfarm employees in Virginia were employed by either federal, state, or local government agencies. Over-the-year average employment totals declined by 1,600 from 1980's figure of 511,200 to the 1981 average of 509,600. Total government was the only service-producing area to register over-the-year job losses. Federal's increases were traceable to defense agencies boosting payrolls. State government produced opposing trends. Cutbacks were made by agencies that depend on federal monies, while educational institutions added to their staffs. Largest changes occurred at the local level. Reductions in federal funds for many programs produced layoffs and cutbacks. The Comprehensive Employment and Training Act (CETA) funding of public service jobs incurred the most significant amount of contraction. During 1982 government employment is expected to decline even further as hiring freezes and fund reductions continue.

Uncertainty and doubts about the future are being felt and expressed by many but Virginia's broad-based industrial make-up should continue to keep the Commonwealth and her people insulated from the depths of recession many of the other areas of the nation have experienced.

Ruby L. Butler

WORK STOPPAGES - UNITED STATES AND VIRGINIA - 1980

Work stoppages caused a work loss time of 0.04 percent of total working time in Virginia in 1980 while the national rate was .14 percent. Man-days idle in Virginia decreased to 196,400, approximately 63 percent less than in 1979. The number of workers involved in strikes in 1980 was 23.8 percent fewer than in 1979. In 1980 most measures of strike activity were in mining, construction, trade, and non-electrical machinery. The following table expresses in thousands the number of workers and man-days involved in 1980 stoppages.

INDUSTRY GROUP	UNITED STATES			VIRGINIA		
	Stoppages Beginning in Year		Man-Days Idle During Year (All Stoppages)	Stoppages Beginning in Year		Man-days Idle During Year (All Stoppages)
	Number 1/	Workers Involved		Number 1/	Workers Involved	
ALL INDUSTRIES	3,885	1,366.3	33,288.5	68	18.3	196.4
MANUFACTURING	1,809	453.3	17,153.6	15	2.6	61.1
Ordnance and Accessories	-	-	-	-	-	-
Food and Kindred Products	155	32.8	810.3	1	2/	.1
Tobacco Manufactures	-	-	-	-	-	-
Textile Mill Products	33	5.5	165.1	-	-	.2 4/
Apparel and Other Finished Products Made From Fabrics and Similar Materials	37	2.8	61.6	1	.2	3.7
Lumber and Wood Products, except Furniture	70	9.8	419.5	-	-	-
Furniture and Fixtures	60	15.2	310.0	1	.2	.6
Paper and Allied Products	68	18.4	634.3	-	-	-
Printing, Publishing and Allied Industries	33	8.0	131.9	-	-	-
Chemicals and Allied Products	89	10.7	469.3	-	-	-
Petroleum Refining and Related Industries	19	64.8	3,763.5	1	.2	11.5
Rubber and Miscellaneous Plastics Products	61	8.6	241.9	2	.6	2.7
Leather and Leather Products	7	3.1	41.8	-	-	-
Stone, Clay, and Glass Products	118	15.0	359.1	2	.1	.2
Primary Metal Industries	175	41.9	1,746.6	1	.2	2.3
Fabricated Metal Products, except Ordnance, Machinery, and Transportation Equipment	280	48.9	1,400.3	1	- 2/	2/
Machinery, except Electrical	280	62.2	2,759.1	2	.1	24.5
Electric and Electronic Equipment	140	45.2	753.4	2	.9	4.1
Transportation Equipment	114	48.6	2,679.2	1	.1	11.3
Professional, Scientific and Controlling Instruments: Photographic and Optical Goods; Watches and Clocks	29	6.0	202.1	-	-	-
Miscellaneous Manufacturing Industries	42	5.8	204.6	-	-	-
NONMANUFACTURING	2,080	913.0	16,134.9	53	15.7	135.3
Agriculture, Forestry and Fisheries	19	7.9	107.6	-	-	-
Mining	297	116.6	1,952.0	40	11.8	23.0
Construction	287	320.4	4,752.5	6	3.2	73.2
Transportation, Communication, Electric, Gas and Sanitary Services	243	95.7	1,740.7	1	.1	.5
Wholesale and Retail Trade	411	61.1	1,402.7	2	.6	34.8
Finance, Insurance and Real Estate	25	2.2	54.7	-	-	-
Services	262	85.6	3,776.8	3	.1	3.8
Government 3/	536	223.6	2,347.8	1	-	-

1/ Stoppages extending into two industry groups or more have been counted in each industry affected; workers involved and man-days idle were allocated to the respective groups.
2/ Less than 100 workers or man-days.
3/ The situations reported here have, for statistical purposes, been deemed to fall within the Bureau of Labor Statistics' definition of a work stoppage.
4/ Strikes carried over from 1979. Number and workers involved counted in 1979 totals.
NOTE: Because of rounding, sums of individual items may not equal totals. Dashes (-) denote zeros.
SOURCE: The United States Department of Labor, Bureau of Labor Statistics.

BRISTOL METROPOLITAN AREA

Situated in southwest Virginia adjacent to the Tennessee border, the Bristol, Virginia Metropolitan Area encompasses the counties of Washington and Scott and the Virginia portion of Bristol City. The population of the Bristol, Virginia Area as a whole displayed an 11.6 percent increase between the 1970 and the 1980 censuses. The largest population increase was in Bristol City (28.2 percent), followed by Washington County (13.8 percent), and Scott County (2.8 percent). Additionally, housing units in the Bristol Area showed a 24.5 percent increase from the 1970 census. In terms of employment, annual average employment in 1981 dipped as it was overshadowed by national recessionary trends. Average employment in the area decreased 2.2 percent from 1980, or from an estimated 27,500 workers to an estimate of 26,900.

Easy accessibility to most major modes of transportation has provided for a broad industrial base in the area. Manufacturing comprised 34.6 percent of total nonagricultural employment, and a large variety of consumer goods and industrial materials were produced within the area. Employment growth in manufacturing since 1977 has shown a 5.7 percent increase. Employment was stable in 1981; however, there were some strikes and layoffs among area firms. Fairly early in 1981 a labor dispute by metalworkers affected employment, causing a downward trend for the month of March. Even though there were intermittent layoffs and recalls in the primary and fabricated metals and apparel industries, these industries have exhibited employment growth since 1980 and also during the five year period from 1977. Since 1977 the lumber and wood products industries has declined. The condition of the national economy, and specifically, a depressed construction industry, had an adverse impact on the 1981 level of employment in the lumber and wood division.

Production worker earnings in the Bristol Area fluctuated somewhat, due to the piecework pay in the apparel industry. However, the 1981 average weekly earnings for production workers in manufacturing industries in the area were $226.88, which was a 10.1 percent increase from the 1980 average of $206.07.

Nonmanufacturing employment in the metropolitan area was 65.4 percent of the total nonagricultural figure. The largest component in this division was trade, followed by government; services and mining; transportation and public utilities; finance, insurance and real estate; and construction. Retail trade in the area has been enhanced by downtown revitalization projects and the renovation of the historic Norfolk and Western Railroad Station into a "Trainstation Marketplace." Currently there are seventeen shops with several new openings expected soon. In the services industry, several new motels have opened/expanded in the area, and some may host tourists from the World's Fair to be held in Knoxville in the summer of 1982.

During the 1980-1981 period government employment showed a decline. Most of the drop was because of federal budgetary cuts, and the consequent loss of CETA employees. CETA employees had served in the areas of public works, recreation and parks, and the school systems. A bright spot in the area was the proposed multi-use recreation park in Abingdon. The park will include three ballfields as well as other outdoor facilities.

Construction was on the downtrend in 1981 due to a number of national and regional factors. Aiding future employment, several housing projects have been scheduled, as well as some highway maintenance and construction projects. However, much of construction's future performance will depend on national interest rates, and the availability of federal and/or state funds.

Generally, 1981 average annual employment in the Bristol Area has stood firm. Some industries did mirror national economic trends because of federal budgetary cuts, high national interest rates, and economic sluggishness. Additionally, because so much of 1982's performance does depend on these national trends, no particular economic area can be isolated. However, the hardworking people of these southwestern Virginia communities should weather the recession and contribute to economic growth in the area.

Mary Cottrell

EMPLOYMENT IN THE BRISTOL, VIRGINIA AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISION

ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL	26.9	27.5	28.4	27.2	25.1	7.2
MANUFACTURING	9.3	9.2	9.9	9.7	8.8	5.7
Durable Goods	4.7	4.7	5.3	5.2	4.8	- 2.1
Lumber and Wood Products and Furniture and Fixtures	.2	.3	.5	.6	.5	- 60.0
Stone, Clay and Glass Products	.3	.3	.3	.3	.3	0
Primary Metal Ind. and Fabricated Metal Prod.	2.3	2.2	2.3	2.1	2.0	15.0
Other Durable Goods 1/	1.9	1.9	2.2	2.2	2.0	- 5.0
Nondurable Goods	4.5	4.5	4.6	4.5	4.0	12.5
Food and Kindred Products	1.7	1.7	1.8	1.7	1.6	6.2
Textile Mill Products	.1	.1	.1	.2	.1	0
Apparel and Other Textile Products	1.9	1.7	1.8	1.7	1.6	18.8
Paper & Allied Prod., Printing & Publishing	.4	.5	.5	.5	.4	0
Other Nondurable Goods 2/	.4	.5	.4	.4	.3	33.3
NONMANUFACTURING	17.6	18.3	18.5	17.5	16.3	8.0
Construction	.9	1.1	1.3	1.3	1.1	- 18.2
General Building Contractors	.3	.3	.5	.4	.4	- 25.0
Heavy Construction Contractors	.2	.3	.3	.3	.2	0
Special Trade Contractors	.4	.5	.5	.6	.5	- 20.0
Transportation and Utilities	1.0	1.1	1.1	1.0	.9	11.1
Trucking and Warehousing	.4	.4	.4	.4	.4	0
Wholesale and Retail Trade	6.4	6.4	6.6	6.2	6.2	3.2
Wholesale Trade	1.3	1.3	1.4	1.5	1.6	- 18.8
Retail Trade	5.1	5.1	5.2	4.7	4.6	10.9
Building Materials and Farm Equipment	.2	.3	.3	.3	.3	- 33.3
General Merchandise Stores	.7	.8	.8	.8	.9	- 22.2
Food Stores	.9	.9	.9	.8	.7	28.6
Automotive Dealers and Service Stations	.7	.7	.8	.8	.8	- 12.5
Apparel and Accessory Stores	.3	.3	.3	.3	.3	0
Furniture and Home Furnishings	.3	.3	.3	.2	.2	50.0
Eating and Drinking Places	1.2	1.2	1.2	1.1	1.0	20.0
Miscellaneous Retail	.6	.5	.5	.4	.4	50.0
Finance, Insurance and Real Estate	.9	.9	1.0	.9	.8	12.5
Banking	.4	.4	.4	.4	.4	0
Services and Mining	3.4	3.5	3.5	3.2	3.0	13.3
Hotels and Other Lodging Places	.2	.2	.3	.3	.3	- 33.3
Personal Services	.3	.3	.3	.3	.3	0
Automotive Repair, Services, and Garages	.1	.1	.1	.1	.1	0
Health Services	1.0	1.0	.9	.9	.8	25.0
Educational Services	.4	.4	.4	.4	.3	33.3
Membership Organizations	.3	.5	.6	.6	.5	- 40.0
Government	5.0	5.3	5.0	4.9	4.3	16.3
Federal Government	.5	.4	.3	.3	.3	66.7
State Government	1.4	1.4	1.4	1.3	1.1	27.3
Local Government	3.1	3.5	3.3	3.3	2.9	6.9

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure in accordance with 1972 Standard Industrial Classification Manual.

The Bristol, Virginia Metropolitan Area covers the city of Bristol and the counties of Scott and Washington.

1/ Includes machinery, except electric, electric and electronic equipment, transportation equipment, and instruments and related products.

2/ Includes tobacco manufactures, chemicals and allied products, rubber and miscellaneous plastics products, and leather and leather products.

NOTE: Detail may not add to totals due to rounding.

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES

ANNUAL AVERAGES 1980 & 1981

BRISTOL STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES					
			Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	7.0	6.8	$ 226.88 1/	$ 206.07	37.5	37.4	$ 6.05 1/	$ 5.51
Durable Goods	3.6	3.6	282.20 1/	250.90	40.2	39.7	7.02 1/	6.32
Fabricated Metal Products	1.4	1.4	327.53 1/	319.57	39.7	39.6	8.25 1/	8.07
Machinery and Transportation Equipment	1.5	1.4	268.71	242.80	40.9	40.4	6.57	6.01
Nondurable Goods	3.4	3.2	167.39	156.25	34.8	34.8	4.81	4.49
Food and Kindred Products	.9	.9	191.13	185.36	34.5	34.2	5.54	5.42
Apparel and Other Textile Products	1.7	1.6	138.78	127.16	33.2	33.2	4.18	3.83

The Bristol, Virginia Metropolitan Area covers the city of Bristol and the counties of Scott and Washington.

1/ Not comparable with data for prior years.

PETERSBURG STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES					
			Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	8.2	8.8	$ 336.26	$ 300.56	39.1	39.6	$ 8.60	$ 7.59
Durable Goods	2.0	2.2	194.39 1/	177.33	38.8 1/	38.3	5.01	4.63
Lumber and Wood Products and Furniture and Fixtures	.4	.4	213.42 1/	143.32	41.2 1/	35.3	5.18 1/	4.06
Nondurable Goods	6.2	6.6	381.02	341.65	39.2	40.1	9.72	8.52
Food and Kindred Products	.1	.2	228.97	221.25	40.1	40.3	5.71	5.49
Chemicals and Allied Products	2.6	2.6	398.75	380.80	40.4	42.5	9.87	8.96

The Petersburg - Colonial Heights - Hopewell Standard Metropolitan Statistical Area covers the cities of Colonial Heights, Hopewell, and Petersburg and the counties of Dinwiddie and Prince George.

Average earnings are computed on a gross basis, reflecting not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

1) Not comparable with data for prior years.

PETERSBURG - COLONIAL HEIGHTS - HOPEWELL
STANDARD METROPOLITAN STATISTICAL AREA

With a population of approximately 129,300, the cities of Colonial Heights, Hopewell, and Petersburg and the counties of Dinwiddie and Prince George comprise one of Virginia's major metropolitan areas. Located in southside Virginia, the area showed a 0.4 percent increase in population from the 1970 census figure of 128,809.

Employment in manufacturing industries was a quarter of total nonagricultural employment in the area, while nonmanufacturing accounted for the remaining three quarters. For the five-year period from 1977 to 1981, annual average employment in manufacturing declined, while nonmanufacturing increased with the exception of the 1980 to 1981 interval. Manufacturing firms in the area produced a variety of products including cigarettes, chemicals, fibers, machinery, jeans, and luggage. There were layoffs in a number of manufacturing firms and also production curtailments because of lesser consumer demand and efforts to reduce inventories. There was a strike affecting one chemical plant in the area; however, a settlement was negotiated within a brief period of time. The tobacco industry continued to be a leading employer in the area, and the area ranked among the top ten counties and cities in Virginia with employment in this industry. Because of the utilization of the most efficient technology, Petersburg's leading employer has begun plans for a large layoff. The layoff will not be complete until the later part of 1982 when a third of the firm's work force will be trimmed.

The Petersburg Area has many resources to offer new industries and jobs will be added to totals with the plans/announcements of scheduled new plant locations in the SMSA. Plans were negotiated for the $150 million ethanol plant to be located in Petersburg City. Eventually it is expected that the new facility will become one of Petersburg's top ten employers. The first firm to locate in the vicinity of the Petersburg-Dinwiddie Airport dedicated its new offices, and an industrial park may be created should additional firms locate in the airport area. Weekly average earnings in the SMSA for manufacturing production workers increased by 11.9 percent from the 1980 average - a jump from $300.56 to $336.26.

During the five-year period from 1977, nonmanufacturing averages increased in each period except the 1980-1981 period. No area or region was completely isolated from the effects of a national recession, and the employment levels in the Petersburg Area reflected the unfavorable economic conditions. The depressed housing and construction industries and federal budgetary cuts were primary reasons for reduced employment levels. However, despite the general economic conditions, new firms did locate in the area. Among the new firms was a computer center in Prince George County which added many new jobs. In addition, a large food distribution center has begun locations in Prince George.

Trade accounted for 25.7 percent of the nonmanufacturing employment sector. Many retail trade establishments opened, while retail trade employment increased by 5.6 percent from 1980. Services, 19.5 percent of nonmanufacturing employment, was the only other division to exhibit an employment gain from 1980. One medical services facility went forward with plans for a major addition to existing facilities.

Government, 41.7 percent of the nonmanufacturing sector, was the largest employment division. Federal installations are large contributors to the local economy. Despite local governments' losses in the 1980-1981 period, the five-year time span demonstrated growth, while federal government declined and state government was constant in the five-year period. Federal budget cuts in 1981 impacted on the local government employment level as many CETA positions were abolished.

Although construction declined in the area, indications of business confidence emerged as a new subdivision officially opened in Colonial Heights. While offering exclusive housing, the area also provided space for commercial growth as well. Downtown revitalization continued to be an interest of officials and business people, and projects were planned for area cities.

Throughout the year some firms cut back in response to recessionary elements, while other firms located in the area. Overall, foresight and planning paid off in stabilizing the area and economic diversification has resulted.

Mary Cottrell

EMPLOYMENT IN NONAGRICULTURAL ESTABLISHMENTS PETERSBURG - COLONIAL HEIGHTS - HOPEWELL AREA BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees) 1981	1980	1979	1978	1977	Percent Change From 1977 - 1981
NONAGRICULTURAL	44.7	46.3	46.9	46.4	44.8	- .2
MANUFACTURING	10.5	11.0	11.9	12.6	12.8	- 18.0
Durable Goods	2.4	2.6	2.7	2.9	2.9	- 17.2
Lumber and Wood Products and Furniture and Fixtures	.5	.4	.6	.6	.6	- 16.7
Stone, Clay and Glass Products	.2	.2	.3	.2	.2	0
Fabricated Metal Products	.2	.2	.2	.3	.2	0
Other Durable Goods 1/	1.6	1.8	1.6	1.8	1.9	- 15.8
Nondurable Goods	8.0	8.4	9.2	9.7	9.9	- 19.2
Food and Kindred Products	.3	.3	.4	.3	.5	- 40.0
Textile Mill Products and Apparel and Other Textile Products	.3	.4	.7	1.0	.6	- 50.0
Chemicals and Allied Products	3.5	3.6	3.8	3.8	3.9	- 10.3
Other Nondurable Goods 2/	3.9	4.1	4.3	4.6	4.9	- 20.4
NONMANUFACTURING	34.3	35.3	35.0	33.8	32.0	7.2
Construction	2.0	2.9	2.6	2.4	2.3	- 13.0
General Building Contractors	.7	1.6	1.2	.7	.7	0
Heavy Construction Contractors	.4	.4	.3	.4	.4	0
Special Trade Contractors	.9	.9	1.1	1.3	1.2	- 25.0
Transportation and Public Utilities	1.3	1.4	1.5	1.3	1.3	0
Wholesale and Retail Trade	8.8	8.5	8.5	8.5	8.2	7.3
Wholesale Trade	1.2	1.3	1.2	1.2	1.1	9.1
Retail Trade	7.6	7.2	7.3	7.3	7.1	7.0
General Merchandise Stores	1.4	1.4	1.6	1.8	1.7	- 17.6
Food Stores	1.2	1.2	1.1	1.0	1.0	20.0
Automotive Dealers and Service Stations	1.1	1.1	1.2	1.2	1.2	- 8.3
Eating and Drinking Places	2.3	1.8	1.7	1.6	1.5	53.3
Miscellaneous Retail	.8	.8	.8	.8	.7	14.3
Finance, Insurance and Real Estate	1.2	1.3	1.3	1.2	1.1	9.1
Services and Mining	6.7	6.2	5.8	5.6	5.1	31.4
Personal Services	.8	.8	.8	.7	.7	14.3
Health Services	2.5	2.3	2.2	2.2	2.0	25.0
Government	14.3	15.0	15.3	14.8	14.0	2.1
Federal Government	5.3	5.6	5.5	5.5	5.5	- 3.6
State and Local Government	9.0	9.4	9.8	9.3	8.5	5.9
State	3.5	3.5	3.7	3.6	3.5	0
Local	5.3	5.9	6.1	5.7	5.0	6.0

Estimates include all full-time and part-time wage and salary workers who worked or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure is in accordance with 1972 Standard Industrial Classification Manual.

The Petersburg-Colonial Heights-Hopewell Standard Metropolitan Statistical Area covers the cities of Colonial Heights, Hopewell, and Petersburg and the counties of Dinwiddie and Prince George.

1/ Includes primary metal industries, machinery, except electric, and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

2/ Includes paper and allied products, printing and publishing, rubber and miscellaneous plastic products, and leather and leather products.

NOTE: Detail may not add to totals due to rounding.

LYNCHBURG STANDARD METROPOLITAN STATISTICAL AREA

The year 1981 for Lynchburg and its surrounding counties was a significant and stormy one. The area was plagued throughout the year by the same negative factors that affected the national economy: high interest rates, inflation, deflating dollars, and a possible recession. The employment level for the year was 300 below the previous year and a minus four-tenths percent change between 1980 and 1981.

The number of people employed in manufacturing industries in Lynchburg was 40.6 percent of nonagricultural workers during the year. (The state's percentage was 19.1 percent.) Production workers' earnings averaged $270.14 or $29.84 more than the previous year. Hourly earnings were up fifty-nine cents to $6.72 while the average workweek at 40.2 hours was an hour more than the 1980 mean. Manufacturing employment after confronting layoffs, recalls, shutdowns, and reopenings was minus 100 workers for 1981. Large firms were faced with slowdowns in business and rising costs, resulting in employee layoffs. Furniture and rubber manufacturers were also hit with layoffs and shutdowns. An October fire which destroyed approximately 75 percent of Winebarger Inc., the largest builder of furniture for churches, courthouses, and funeral homes in the United States, left nearly half of the firm's employees jobless. A $5 million reconstruction project was started almost immediately. The new plant foresees greater lumber and warehouse space and better working conditions. Lynchburg's economy got a big boost by the announcement of a $2 million expansion and revitalization of Hercules Products Division; the building of a new $1 million plastics firm; and the hiring of Babcock and Wilcox to design and develop a $1.2 million molten salt solar steam generator system.

The nonmanufacturing division was lacking 200 jobs at the end of 1981. Contractors released 400 employees during the year. Home construction was down by over thirty percent, and the total cost of all construction activity was off 37 percent from last year. The irregularity of construction was felt in finance, insurance and real estate, even though employment remained unchanged from 1980. Builder, buyers and lenders were caught in a web. Builders could not sell, buyers could not buy, and lenders were losing money. The All Savers Certificates - the new tax free accounts - were introduced as the most successful new savings products. The certificates were designed to help bolster the ailing savings and loan industry.

Transportation and public utilities reported an unchanged employment level of 2,700. The area, however, did undergo a few changes: the Greater Lynchburg Transit Co. added to their fleet five new 36-passenger buses that are equipped with wheelchair lifts for the handicapped. The city welcomed a new 24-hour radio station. Air Virginia celebrated the opening of a new $1.4 million corporate headquarters and hangar. In addition, the firm purchased a new $7 million airplane called the British Aerospace Intercity 748 which seats 48-passengers.

Trade employment experienced its biggest gain during the Christmas season as extra workers were hired in both wholesale and retail trade. Lynchburg's newest shopping mall fared very well after one year in operation. All 81 stores reported good business. In the auto industry a continued slump in domestic auto sales caused layoffs. However, the offering of rebates by car dealers did boost new car sales to show a gain of about fifteen percent over 1980. The future of this industry is ambiguous, and it may be a few years before it is completely recovered.

Service and mining enjoyed a healthy gain in workers - 400 from 1980 to 1981. Personal and health services were the major stimuli for the escalation. Inflation took a large bite out of Lynchburg's $33 million downtown hotel, convention center and office complex. The office building and health club were dropped from the plans because of rising construction costs and limited money sources. Also deleted was an entire floor of 41 rooms. The number of spaces on the parking deck was reduced from 500 to 300, but can be expanded if needed. If no other major changes occur, the complex should be finished by May 1983.

A $7.3 million cut from the CETA Title VI public service budget cost approximately 50 people their jobs on this program. Those cuts zeroed in on public service jobs. Lynchburg did not feel the pinch as much as other rural areas, because of it's diversified economy.

While 1981 was not a growth year for the region, employment-wise, it did not fare as badly as many other area's of the state.

Brenda Toomer

ESTIMATED EMPLOYMENT IN LYNCHBURG AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (in Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL 1/	70.4	70.7	71.3	68.9	64.4	9.3
Manufacturing	28.6	28.7	29.6	29.2	28.0	2.1
Durable Goods	18.4	18.7	19.5	19.3	18.2	1.1
Lumber and Wood Products and Furniture and Fixtures	4.0	4.1	4.3	4.2	3.7	8.1
Other Durable Goods 2/	14.4	14.6	15.2	15.1	14.5	- .7
Nondurable Goods	10.2	10.0	10.1	9.9	9.8	4.1
Food and Kindred Products	1.5	1.3	1.3	1.3	1.2	25.0
Textile Mill Products	2.0	1.9	1.8	1.7	1.6	25.0
Apparel and Other Textile Products	2.1	2.2	2.4	2.4	2.7	- 22.2
Paper and Allied Products	1.1	1.0	.9	.9	.9	22.2
Other Nondurable Goods 3/	3.5	3.6	3.7	3.6	3.4	2.9
NONMANUFACTURING	41.8	42.0	41.7	39.7	36.4	14.8
Construction	2.8	3.2	3.2	3.3	3.0	- 6.7
General Building Contractors	.9	1.1	1.0	1.0	1.0	- 10.0
Heavy Construction Contractors	.5	.5	.5	.6	.5	0
Special Trade Contractors	1.4	1.6	1.7	1.7	1.5	- 6.7
Transportation and Public Utilities	2.7	2.7	2.7	2.5	2.6	3.8
Trucking and Warehousing	.9	.9	1.0	.9	.8	12.5
Communication	.8	.7	.7	.7	.7	14.3
Wholesale and Retail Trade	12.1	12.1	12.1	11.5	10.6	14.2
Wholesale Trade	2.3	2.2	2.2	2.1	2.0	15.0
Retail Trade	9.8	9.9	9.9	9.4	8.6	14.0
General Merchandise Stores	1.8	1.7	1.7	1.6	1.5	20.0
Food Stores	1.9	1.9	1.7	1.5	1.4	35.7
Automotive Dealers and Service Stations	1.0	1.9	1.2	1.2	1.2	- 16.7
Eating and Drinking Places	2.4	2.5	2.6	2.3	1.9	26.3
Miscellaneous Retail	1.2	1.2	1.3	1.2	1.1	9.1
Finance, Insurance and Real Estate	3.3	3.3	3.3	3.1	2.9	13.8
Banking	1.1	1.1	1.0	.9	.9	22.2
Insurance Carriers	1.1	1.0	1.0	.9	.8	37.5
Services and Mining	10.9	10.5	10.2	9.6	8.6	26.7
Personal Services	.7	.6	.7	.7	.6	16.7
Health Services	3.4	3.3	3.1	3.0	2.8	21.4
Educational Services	1.6	1.6	1.6	1.6	1.3	23.1
Membership Organizations	1.2	1.2	1.3	1.2	1.0	20.0
Government	10.0	10.2	10.2	9.7	8.7	14.9
State and Local Government	9.5	9.6	9.7	9.2	8.3	14.5
Education	3.9	3.9	4.0	3.8	3.6	8.3
General	5.6	5.7	5.7	5.4	4.7	19.1

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure in accordance with 1972 Standard Industrial Classification Manual.

The Lynchburg Standard Metropolitan Statistical Area covers the city of Lynchburg and the counties of Amherst, Appomattox, and Campbell.

1/ Not comparable with data for years prior to 1970. Appomattox County included in the metropolitan area series beginning with data for January 1970.

2/ Includes stone, clay and glass products, primary metal industries, fabricated metal products, machinery, except electrical, electric and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, printing and publishing, chemicals and allied products, petroleum and coal products, rubber and miscellaneous plastic products, and leather and leather products.

NOTE: **Detail may not add to totals due to rounding.**

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES

ANNUAL AVERAGES 1980 & 1981

LYNCHBURG STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	19.4	19.9	$ 270.14	$ 240.30	40.2	39.2	$ 6.72	$ 6.13
Durable Goods	11.4	12.0	284.42	251.81 1/	40.4	38.8 1/	7.04	6.49 1/
Lumber and Wood Products and Furniture and Fixture	3.3	3.4	174.95	163.62	36.6	37.7	4.78	4.34
Nondurable Goods	8.0	8.0	249.77	222.72	39.9	39.7	6.26	5.61
Food and Kindred Products	.8	.7	267.19	241.81	40.3	42.2	6.63	5.73
Textile Mill Products	1.7	1.6	232.76	221.94	40.2	41.1	5.79	5.40
Apparel and Other Textile Products	1.9	2.1	144.99	130.34	35.8	34.3	4.05	3.80
Paper and Allied Products	1.0	.9	387.24	375.65	49.9	51.6	7.76	7.28

The Lynchburg Standard Metropolitan Statistical Area covers the city of Lynchburg and the counties of Amherst, Appomattox, and Campbell.

1/ Not comparable with data for prior years.

ROANOKE STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	14.8	14.9	$ 253.04	$ 232.22	39.6	39.9	$ 6.39	$ 5.82
Durable Goods	8.3	8.3	261.14	236.78	40.3	40.2	6.48	5.89
Fabricated Metal Products	1.2	1.3	247.01	219.37	41.1	40.4	6.01	5.43
Fabricated Structural Metal Products	.8	.9	252.15	222.60	41.0	40.4	6.15	5.51
Nondurable Goods	6.0	6.6	240.33	226.91	38.7	39.6	6.21	5.73
Food and Kindred Products	.8	.8	265.80	237.62	44.3	43.6	6.00	5.45
Textile Mill Products	1.6	1.7	190.13	181.17	37.8	39.3	5.03	4.61

The Roanoke Standard Metropolitan Statistical Area covers the cities of Roanoke and Salem and the counties of Botetourt, Craig, and Roanoke.

Average earnings are computed on a gross basis, reflecting not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

ROANOKE STANDARD METROPOLITAN STATISTICAL AREA

Employment in the Roanoke SMSA in 1981, at 102,800, declined by 2,100 wage earners from the 104,900 estimate for 1980. Manufacturers had payrolls of 21,100 workers, a drop of two hundred from a year ago. Nonmanufacturers fell from 83,600 in 1980 to 81,700 in 1981, a drop of 1,900. The area's annual average unemployment rate was set at 6.2 percent in 1981, 0.1 percent above the State's average of 6.1 percent, but still below the national average of 7.6 percent.

Roanoke area manufacturers experienced many of the negative factors which plagued firms throughout the State. Declining construction was indirectly responsible for the layoffs, shutdowns, and shorter workweeks suffered by brick, concrete, and furniture manufacturers. Metal, textile, and apparel producers reported furloughs and slow periods at various points in the year, too. A box manufacturer closed because its parent firm needed some "interest-free" funds and an area electrical manufacturer reduced staffs because of less "short cycle" orders. (The previous firm's staff was still above that of 1980.) On the positive side, one area firm won a lucrative army contract in 1981. A site was chosen for a plastic-netting plant during the year with plans of opening in the summer of 1982. Several firms planned expansions in 1981, including a steel fabricator, a furniture maker, and a textile manufacturer. Wages increased by $20.82 in 1981 over 1980 at the total manufacturing level. Weekly hour averages were down by 0.3 hours.

Valley construction employment dropped by 800 workers between 1980 and 1981 - 1,000 below estimates for 1977. General builders were down by 100; heavy construction fell by 300; and special trade contractors declined by 400 over the year. Key factors instrumental in the labor force demise included the housing slump, lost tax revenues for road repair, and do-it-yourselfers. The number of new housing units in Roanoke in 1981 totaled 622, markedly down from 1980's 1,119 units. Discounting inflation, 1981 total construction dollar values were still one percent below 1980 figures. Fortunately, area construction did have some bright spots. A new condominium and townhouse complex was planned for the Yellow Mountain Road area during the year. Roanoke City continued with her Capital Project which includes revitalizing the City Market, building a regional cultural center, expanding Elmwood Park, etc. The projects were in varying stages of completion ranging from finished, to started, to still in the planning stage. A couple of area governments awarded construction contracts for 1981, one for a school expansion and the other for a new municipal building. The developer of the Valley View Mall plans to begin construction as soon as Hershberger Road is widened.

Transportation and public utilities annual average was set at 9,700 in 1981 - 400 below the figure for 1980 of 10,100. Railroad transportation was responsible for all of the downfall as N&W Railway weathered through the ten-week miners' strike during the second quarter of 1981. Despite the strike, N&W displayed record earning levels. Much of the growth was attributed to record-breaking coal deliveries to the piers in Hampton Roads as general commodity shipments were in a recession. With forecasting of continual coal-shipment growth abounding, the company feels secure in its ability to cope with the situation with hundreds of locomotives in storage and shops able to add to the 48,000 coal-hopper fleet at will. Railroad's annual average would have dropped without the coal-miners' strike as N&W began to reduce its staff through attrition. Elsewhere in transportation, Roanoke City Council won approval for an environmental impact report concerning expansion of Woodrum Field in 1981. The city needed the go-ahead to apply for a federal grant of $12 million to extend one of its runways by 900 feet - from 5,900 to 6,800. The airport reported ten percent fewer boardings and landings for 1981 against 1980. Worthy of note, late in the year a Valley interconnect system firm won a large contract to equip a southern university with an 8,500 phone telecommunication system.

The SMSA's trade sector followed the trend of most other Valley nonmanufacturers in 1981, losing 400 employees. Retailers were the culprits, furloughing the same number - 400. Wholesalers have maintained a level of 7,400 for the last three years. 1981 retail sales were only up by 2.6 percent - not even considering the effects of inflation. (1980's retail growth was 5.0 percent above 1979's dollar value.) In the first half of the year a spokesman for the Roanoke Valley Chamber of Commerce was quoted as saying that Valley retailers have a potential market of 750,000 people within a 50-mile radius of the center of the SMSA. He also said that one-half of the area's charge accounts are for consumers outside the SMSA. The Chamber states that the Valley is the home of 5,143 retailers and 470 wholesalers. All are eager to serve. Several new additions were made to the retail sector in 1981. Two North Carolina-based grocers opened at least five area outlets within the year. A building goods dealer also opened two new establishments. Unfortunately, several businesses either closed or left the area including a sound systems dealer and a national grocery chain.

Two of the final three sectors of nonmanufacturing in the Roanoke SMSA followed the trend of reduced staffs, while the third posted gains. The finance division dropped 1981 estimates 200 below 1980 levels. Insurance carriers were responsible for the decline, returning to the 1977 annual average of 2,000 employees. Bankers have maintained the same value for the last three years and realtors, combined with the miscellaneous segments of finance, have remained at 1,200 for the last four years. (Worthy of note, Blue Cross and Blue Shield opened its $10 million, downtown, Roanoke office building in 1981.) Valley government payrolls were curtailed by 400 employees in 1981. Federal staffs declined by 100 with State and local governments responsible for the remaining reduction. Shrinking government funds resulted in the closing of two Roanoke area offices of a state agency; and, at least one Valley government had to slice its school budget for 1981-1982, eliminating several educational programs, closing two schools, and cutting teacher's aide staffs. Fortunately, the Valley's services sector demonstrated employment growth in 1981 up to 20,700 - 300 over 1980's 20,400. Only auto services declined for the industrial level in 1981. Health services staffs grew by 300 - equivalent to the growth at the top level. Most of health's growth was attributed to expansion by area hospitals. Noteworthy, a natural gas company was performing exploration on a tract of land in Botetourt County during the middle of the year.

The Roanoke Valley's workforce drop in 1981 does not necessarily reflect the future of employment for the SMSA. With nonmanufacturer's displaying the bulk of 1981's demise, the construction of Valley View Mall could more than compensate for the declines with a potential of 3,000 employees. Transportation's 1982 annual average will probably not drop as much as 1981's. All in all, 1982 employment totals should improve for the Valley.

Wallace D. LaPrad, Jr.

ESTIMATED EMPLOYMENT IN ROANOKE AREA NONAGRICULTURAL ESTABLISHMENTS
BY MAJOR INDUSTRY DIVISIONS
ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL 1/	102.8	104.9	105.0	102.9	99.7	3.1
MANUFACTURING	21.1	21.3	21.1	21.2	21.0	.5
Durable Goods	12.0	12.1	12.0	11.3	10.9	10.1
Furniture and Fixtures	1.4	1.4	1.4	1.5	1.5	- 6.7
Primary Metals and Fabricated Metal Products	2.4	2.6	2.5	2.1	2.0	20.0
Machinery, except Electrical	1.7	1.7	1.7	1.7	1.6	6.3
Other Durable Goods 2/	6.6	6.4	6.4	6.0	5.8	13.8
Nondurable Goods	9.1	9.2	9.1	9.9	10.1	- 9.9
Food and Kindred Products	1.8	1.9	2.0	2.3	2.2	- 18.2
Textile Mill Products	1.9	2.0	1.8	2.1	2.1	- 9.5
Apparel and Other Textile Products	1.9	1.8	1.8	2.0	2.5	- 24.0
Printing and Publishing	1.0	.9	.9	.9	.9	11.1
Other Nondurable Goods 3/	2.5	2.6	2.6	2.6	2.4	4.2
NONMANUFACTURING	81.7	83.6	83.9	81.7	78.7	3.8
Mining	.2	.1	.1	.2	.2	0
Construction	4.7	5.5	5.9	5.9	5.7	- 17.5
General Building Contractors	1.2	1.3	1.4	1.3	1.3	- 7.7
Heavy Construction Contractors	1.1	1.4	1.5	1.6	1.5	- 26.7
Special Trade Contractors	2.4	2.8	3.0	3.0	2.9	- 17.2
Transportation and Public Utilities	9.7	10.1	10.2	9.1	9.9	- 2.0
Railroad Transportation	4.2	4.6	4.7	3.7	4.9	- 14.3
Local and Interurban Passenger Transit	.3	.3	.4	.4	.4	- 25.0
Trucking and Warehousing	2.0	2.0	2.0	2.0	1.8	11.1
Wholesale and Retail Trade	25.0	25.4	26.1	25.8	24.5	2.0
Wholesale Trade	7.4	7.4	7.4	7.5	7.0	5.7
Retail Trade	17.6	18.0	18.7	18.3	17.5	.6
Building Materials and Garden Supplies	.8	.8	.9	.9	.8	0
General Merchandise Stores	2.9	3.0	3.4	3.3	3.1	- 6.5
Food Stores	2.9	2.8	2.7	2.7	2.5	16.0
Automotive Dealers and Service Stations	2.3	2.4	2.5	2.5	2.4	- 4.2
Apparel and Accessory Stores	1.3	1.3	1.2	1.2	1.1	- 18.2
Furniture and Home Furnishings Stores	.8	.8	.9	.8	.8	0
Eating and Drinking Places	4.2	4.4	4.8	4.6	4.5	- 6.7
Miscellaneous Retail	2.3	2.5	2.3	2.3	2.3	0
Finance, Insurance and Real Estate	6.1	6.3	6.2	5.8	5.5	10.0
Banking	1.7	1.7	1.7	1.6	1.4	21.4
Insurance Carriers	2.0	2.2	2.2	2.1	2.0	0
Real Estate and Other Finance and Insurance	1.2	1.2	1.2	1.2	1.3	- 7.7
Services	20.7	20.4	19.8	19.0	18.1	14.4
Hotels and Other Lodging Places	1.4	1.3	1.2	1.3	1.4	0
Personal Services	1.4	1.3	1.3	1.3	1.3	7.7
Business Services	2.4	2.4	2.4	2.2	1.8	33.3
Automobile Repair, Services and Garages	.8	.9	.9	.8	.7	14.3
Amusement and Recreation Services	.7	.7	.7	.6	.6	16.7
Health Services	7.7	7.4	7.0	6.7	6.6	16.7
Educational Services	1.4	1.3	1.3	1.1	1.0	40.0
Membership Organizations	2.0	2.0	2.0	1.9	2.0	0
Government	15.4	15.8	15.6	15.9	14.8	4.0
Federal Government	3.2	3.3	3.1	3.1	3.0	6.7
State and Local Government	12.2	12.5	12.5	12.8	11.8	3.4
Education	6.1	6.3	6.4	6.3	6.1	0
General	6.0	6.2	6.1	6.5	5.7	5.3

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to first quarter 1981 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Roanoke Standard Metropolitan Statistical Area covers the cities of Roanoke and Salem and the counties of Botetourt, Craig and Roanoke.

1/ Not comparable with data for years prior to 1970. The counties of Botetourt and Craig included in area definition beginning with data for January 1970.

2/ Includes lumber and wood products, stone, clay and glass products, electric and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, paper and allied products, chemicals and allied products, rubber and plastics products and leather and leather products.

NEWPORT NEWS-HAMPTON STANDARD METROPOLITAN STATISTICAL AREA

The Newport News-Hampton SMSA is situated in part of Hampton Roads, which is one of the world's largest natural harbors and the nation's dominate coal port. The area is an industrial center and shipbuilding dominates employment. Further diversifying the area's economy, tourism and the military are important employers.

Since 1977 annual average employment in the nonagricultural sector of the SMSA has grown by 8.3 percent, or from 139,300 workers in 1977 to 150,800 workers in 1981. Manufacturing, 23 percent of the total in 1981, dropped in 1978 and 1979, but increased in 1980 and 1981. Nonmanufacturing, 77 percent of the total in 1981, has shown an increase each year since 1977. Each major division within nonmanufacturing displayed the same pattern of growth, except construction. Construction employment decreased in 1981 from the 1980 average.

Although there were some losses among several industry divisions between the 1980 and 1981 averages, manufacturing employment overall increased by 300 workers during this period. During 1981 there were layoffs in lumber and wood products, machinery, and fibers industries because of the effects of the national recession and the depressed construction and housing industries. Helping to stabilize the area, the Newport News Shipbuilding Company fared well in 1981. The unique capabilities of the yard to build nuclear submarines and aircraft carriers made possible the awarding of contracts for three nuclear-powered attack submarines, creating additional jobs. The yard continues to keep abreast of the latest computer technology as it developed new systems to aid in design and production. The future looks bright for the Peninsula's, as well as Virginia's, largest employer.

The Peninsula Area's proximity to interstate highways as well as air, water, and rail transportation make it an ideal manufacturing location. During 1981 several manufacturing firms announced plans to locate new plants in the SMSA. Additionally, there will be even more jobs coming with the fifteen plant expansions announced for the area. An additional bright spot was the further development of Oyster Point Industrial Park, and the inclusion of a foreign-trade zone.

Nonmanufacturing in the SMSA was 77 percent of total nonagricultural employment in 1981. The largest industry division, in terms of employment, was government, followed by services and mining; trade; construction; transportation and public utilities; and finance, insurance and real estate. The federal government maintains numerous installations throughout the Peninsula, and with increased defense-related spending, this industry has been a stimulus to the area's economy.

Tourist-related industries remain important to the area economy. The services and trade industries interrelate as they depend heavily on tourism. Trade employment showed an overall 1.4 percent increase from the 1980 average, while services employment reflected a 3.4 percent increase above the 1980 average. The services and trade divisions had an estimated 30,500 and 28,900 employees, respectively. Historical and recreational attractions in the area are numerous, and include Williamsburg, Yorktown, and Jamestown historic areas and the Busch Gardens theme park. In October, 1981, the Yorktown Bicentennial Celebration gave tourism a boost and provided temporary jobs for many.

Port-related activities remain a major employer in the SMSA, and port-related employment weathered the effects in 1981 of a 73-day national coal miner's strike. Several coal-loading piers were closed and railroad workers were furloughed as the supply of coal gradually diminished. Increasing port activity was the opening of a grain-bagging plant in Newport News.

Following national trends, construction employment averages decreased in 1981 from 1980. High interest rates, a depressed housing industry, and general economic sluggishness, all contributed to an employment drop in construction. However, plans for construction of housing units, shopping centers, hospital expansions, and recreational facilities should give construction a boost.

In summary, the Newport News-Hampton SMSA has exhibited itself to be a growth area. The large diversity of employment and the ingenuity of the Tidewater Area's population will contribute to economic growth in the future.

Mary Cottrell

EMPLOYMENT IN NEWPORT NEWS-HAMPTON AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (in Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL 1/	150.8	149.4	145.1	144.6	139.3	8.3
MANUFACTURING	34.6	34.3	31.9	34.1	34.6	0
Durable Goods	28.7	28.4	25.8	28.1	28.9	- .7
Stone, Clay and Glass Products	.5	.6	.3	.3	.3	66.7
Transportation Equipment	24.7	23.9	21.4	24.2	25.1	- 1.6
Other Durable Goods 2/	3.5	3.9	4.1	3.6	3.5	0
Nondurable Goods	5.9	5.9	6.1	6.0	5.7	3.5
Food and Kindred Products	2.4	2.4	2.5	2.4	2.3	4.3
Textile Mill Products and Apparel and Other Textile Products	.5	.6	.7	.7	.7	- 28.6
Printing and Publishing	1.1	1.1	1.1	1.1	1.0	10.0
Other Nondurable Goods 3/	1.9	1.8	1.8	1.8	1.7	11.8
NONMANUFACTURING	116.2	115.1	113.2	110.5	104.7	11.0
Construction	6.7	7.3	8.3	7.5	6.2	8.1
General Building Contractors	2.0	2.6	3.2	2.8	2.0	0
Heavy Construction Contractors	.9	.9	1.0	1.0	.9	0
Special Trade Contractors	3.8	3.8	4.1	3.7	3.3	15.2
Transportation and Public Utilities	4.9	4.8	5.0	4.8	4.6	6.5
Railroad Transportation	1.0	1.0	.9	.8	.9	11.1
Water Transportation	.4	.3	.4	.5	.4	0
Wholesale and Retail Trade	28.9	28.5	28.1	27.2	25.8	12.0
Wholesale Trade	3.6	3.6	3.3	3.2	3.2	12.5
Retail Trade	25.3	24.9	24.8	24.0	22.6	11.9
Building Materials and Garden Supplies	.9	.9	.9	.9	.7	28.6
General Merchandise	3.6	4.0	4.4	4.4	4.2	- 14.3
Food Stores	4.1	4.2	4.2	3.7	3.5	17.1
Auto Dealers and Service Stations	2.6	2.7	2.9	3.1	3.1	- 16.1
Apparel and Accessory Stores	1.4	1.4	1.5	1.3	1.3	7.7
Furniture and Home Furnishings Stores	.9	.9	1.0	.9	.9	0
Eating and Drinking Places	7.9	7.1	6.5	6.5	5.8	36.2
Miscellaneous Retail	3.9	3.7	3.5	3.2	3.1	25.8
Finance, Insurance and Real Estate	4.8	4.8	4.8	4.8	4.6	4.3
Banking	1.3	1.3	1.4	1.4	1.3	0
Real Estate	1.9	1.9	1.8	1.9	1.9	0
Services and Mining	30.5	29.5	27.4	26.5	25.2	21.0
Hotels and Other Lodging Places	6.7	6.7	5.6	5.1	4.8	39.6
Personal Services	1.5	1.4	1.5	1.4	1.4	7.1
Business Services	3.9	3.8	3.6	3.2	3.0	30.0
Health Services	7.4	6.8	6.5	6.3	6.0	23.3
Educational Services	1.9	1.8	1.9	2.1	2.0	- 5.0
Membership Organizations	2.0	1.8	1.5	1.6	1.6	25.0
Miscellaneous Services	1.0	1.0	1.0	.9	1.1	- 9.1
Government	40.3	40.2	39.6	39.7	38.3	5.2
Federal Government	17.0	16.6	16.7	17.0	17.1	- .6
State and Local Government	23.3	23.6	22.9	22.7	21.2	9.9
State	6.9	6.8	6.3	5.9	5.6	23.2
Local	16.4	16.8	16.6	16.8	15.6	5.1

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Newport News-Hampton Standard Metropolitan Statistical Area covers the cities of Hampton, Newport News, Poquoson and Williamsburg and the counties of James City, York and Gloucester.

1/ Not comparable with data for years prior to 1975. The cities of Poquoson and Williamsburg and the county of James City, included in the metropolitan area series beginning with data for January 1970. The county of Gloucester is not included in statistics prior to 1975.

2/ Includes lumber and wood products, furniture and fixtures, primary metal industries, fabricated metal products, machinery except electric, electric and electronic equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, paper and allied products, chemicals and allied products, petroleum and coal products, and leather and leather products.

NOTE: Detail may not add to totals due to rounding.

NORFOLK-VIRGINIA BEACH-PORTSMOUTH
STANDARD METROPOLITAN STATISTICAL AREA

Employment in the Norfolk SMSA grew by 2,400 wage earners during 1981 - a decline of 400 from the increase between 1979 and 1980. Plusses were seen in both manufacturing and nonmanufacturing employment, with nonmanufacturers responsible for approximately eighty-eight percent of the rise. Manufacturers increased 1981 staffs (over 1980) by 300 employees, but were still 600 workers below estimates for 1979. The average unemployment rate in the area at 6.6 percent for 1981 was one-half percent above the state level of 6.1 percent, but still a full percentage point below the national average of 7.6 percent.

Most of the news in manufacturing for 1981 centered around transportation equipment, the SMSA's most significant manufacturer. An estimated 400 jobs were added to this sector putting overall figures into the plus side. Area shipbuilders and repairers had an exceptionally good year despite a continued downturn in commercial contracts. Most of the improved business was credited to a rapid influx of government projects. Contracts for overhauling and expanding naval vessels abounded, the direct result of our government's commitment to beef-up naval defense. A spokesman for one firm was quoted as saying that government projects kept his company from furloughing nearly 2,000 employees late in the year. On the other hand, continued tumbling automotive sales severely hampered area automotive manufacturers. One manufacturer had to stop production at several points during the year for a total of nine lost weeks. Apparently 1982 looks even bleaker as automotive layoffs are slated for early in the year. Other areas of manufacturing also suffered during 1981. Lumber mills, concrete product manufacturers, and furniture producers all felt the pinch of declining construction. On the bright side, an improved growing season resulted in some labor reinstatements by local peanut processors. Wages at the overall manufacturing level were up $22.24 in 1981. All sectors of the industry displayed monetary gains over the year. Weekly hour averages increased by half-an-hour at the overall level and hourly wage averages were up 46 cents overall for the same period.

Construction employment declined by 700 over 1980 - not bad considering inflation and high interest rates. Heavy constructors were responsible for the drop as special trade contractors and general contractors maintained 1980 levels. (All three divisions were down 200 each between 1979 and 1980.) Building rose 9.96 percent the first eight months of the year, largely the result of a 51 percent increase in government work. Projects for new facilities were either planned or instituted by the military, postal service, local education, etc. Residental builders had started 3,991 housing units by November 30, 1981, versus 4,311 units started over the same period a year ago - down 7.4 percent. New shopping malls, condominium units, hotels, and industrial complexes were all in varying stages of development ranging from mere plans to completion. Ground was broken in December for a $13.5 million, 125,000 square-foot shopping complex on the waterfront in Norfolk. Norfolk also developed plans for a $135 million project to revitalize the downtown waterfront, including a $30 million World Trade Center. In addition to these projects, construction of new coal-exporting piers was either begun or planned. Unfortunately, future construction in South Hampton Roads could be lean, especially for road constructors as State-funded projects slated for the area currently lack $737 million. High interest rates and inflation may continue to hinder residential builders.

The big story in 1981 at the SMSA's ports was when, where, and how many new coal-dumping piers would be built. After much deliberation, the Virginia Port Authority and six coal firms agreed to build a multi-million dollar pier in Portsmouth. Throughout Tidewater at least a half-dozen additional piers (of smaller size) were either placed under construction or on the drawing boards in 1981. If all piers are completed, the area will be capable of more than doubling its existing annual coal-tonnage exportation. This huge interest in new coal pier construction has resulted from record coal dumpings which began in 1980. Daily, weekly, and monthly dumping records were broken late in 1981 with practically every shipment. The annual total for all of Tidewater of 47.6 million tons would have been higher than 1980's 48.6 million had not the ten week miners' strike slowed coal flow to a trickle. South Hampton Roads handled 32 million tons of the exported coal. Unfortunately, all 1981's good news in coal exporting did little to increase employment at the docks. Most of the coal is loaded mechanically, and few laborers are needed. Water transportation's annual average supports this fact, showing an increase of only a hundred laborers. Increased coal dumping will certainly benefit the area in many ways, but more break bulk and container shipments will be needed for significant employment gains at the piers. South Hampton Roads handled approximately 2.8 million tons of general cargo in 1981 - 1.8 million containerized and the rest break bulk. No significant growth in 1981 general cargo shipments over 1980 occurred. Worthy of note, Norfolk's airport saw substantial growth in 1981 due to commercial flights abandoning Patrick Henry Airport on the Peninsula. Passenger increases were up 18 percent and officials feel the figure would have been 25 percent without the air controllers' strike.

Wholesale and retail trade dealers increased 1981 staffs by 1,700 over estimates for 1980. All growth was registered in retail trade as wholesalers kept abreast with 1980 figures. General merchandise stores, grocers, furniture stores, restaurants, and miscellaneous retail stores demonstrated employment gains with only clothing stores and automotive dealers showing declines. Sales were considered to be very good most of the year, though Christmas spending was below expectations. Retail sales in South Hampton Roads were up 18.8 percent over 1980 figures. Increased military pay and an outstanding tourist season were the basic contributing factors. The Lynnhaven and Greenbrier Malls offically opened during the year while Pembroke Mall expanded. Several retailers closed their area outlets only to be replaced by similar establishments.

The services sector of the Norfolk SMSA's business world added an estimated 2,200 employees in 1981. Hotels, health services, educational services, and miscellaneous services demonstrated the most significant gains - each up 300 or better. Tourist caterer's had an exceptionally good season right from the beginning with an excellent Memorial Day weekend. Estimates of ninety percent capacity at area beaches, campsites, and inns were made for the holiday. Local tax revenues from innkeepers and restaurateurs hinted towards an excellent summer also. Even with inflation and increased tax rates taken into account, tax revenues suggested an eight to ten percent increase in tourism. Area officials hope for continued growth in tourism buoyed by revitalization projects. Gains should continue among area health services as new hospitals are developed. Business services to the military should grow because of plans to restrengthen the navy. Worthy of note, several oil firms are considering plans to drill near the coasts of Chesapeake and Virginia Beach - some as close as three miles.

Government employment dropped by eleven hundred in 1981. Federal employment posted gains while State and local governments trimmed total employment. Government employment in the SMSA accounts for twenty-eight percent of the area's workers, making it the single most important employment sector. Increased military activity should enlarge federal payrolls. Military spending has been said by one area spokesman to have a pyramidal effect, flowing down and out to all sectors of the SMSA's economy. State and local governments, because of slashes in federal funds, probably will continue to have workforce reductions.

While South Hampton Roads only experienced employment growth of less than one percent in 1981, it did experience growth. Improved retail trade, an outstanding tourist season, increased federal spending, and larger military salaries were the major factors stabilizing the area for the year. Fortunately, area economists feel that retail trade will continue to grow in 1982, though at a slower rate. Revitalization projects throughout the SMSA should continue to draw plenty of tourists. Plans for more federal spending will greatly benefit the area's economy, including employment. With these factors anchoring the workforce in South Hampton Roads, employment should continue to grow.

Wallace D. LaPrad, Jr.

ESTIMATED EMPLOYMENT IN NORFOLK VIRGINIA BEACH PORTSMOUTH AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL 1/	289.5	287.1	284.3	277.9	260.9	11.0
MANUFACTURING	29.5	29.2	30.1	29.0	27.5	7.3
Durable Goods	17.9	17.6	17.7	16.9	15.9	12.6
Lumber and Wood Products	1.5	1.6	1.8	1.8	1.8	- 16.7
Stone, Clay and Glass Products	1.7	1.7	1.9	1.8	2.0	- 15.0
Fabricated Metal Products	1.0	1.0	1.0	1.0	.9	11.1
Machinery, except Electrical	1.3	1.2	1.0	.9	.8	62.5
Transportation Equipment	7.8	7.4	7.5	7.0	6.2	25.8
Other Durable Goods 2/	4.5	4.7	4.5	4.4	4.2	7.1
Nondurable Goods	11.6	11.6	12.4	12.1	11.6	0
Food and Kindred Products	5.5	5.7	6.0	5.8	5.8	- 5.2
Apparel and Other Textile Products	1.0	.9	1.0	1.0	.8	25.0
Printing and Publishing	2.5	2.4	2.2	2.1	2.1	19.0
Chemicals and Allied Products	1.2	1.4	1.6	1.6	1.5	- 20.0
Agricultural Chemcials	.6	.7	.8	.8	.7	- 14.3
Other Nondurable Goods 3/	1.4	1.2	1.6	1.6	1.4	0
NONMANUFACTURING	260.0	257.9	254.2	248.9	233.4	11.4
Construction	16.8	17.5	18.1	18.3	16.6	1.2
General Building Contractors	4.1	4.1	4.3	4.4	3.8	7.9
Heavy Construction Contractors	3.3	4.0	4.2	4.0	3.8	- 13.2
Special Trade Contractors	9.4	9.4	9.6	9.9	9.0	4.4
Transportation and Public Utilities	19.6	19.3	19.2	18.0	17.7	10.7
Railroad Transportation	1.4	1.5	1.5	1.2	1.8	- 22.2
Local and Interurban Passenger Transit	1.8	1.9	1.8	1.7	1.7	5.9
Trucking and Warehousing	3.5	3.6	3.5	3.4	3.3	6.1
Water Transportation	4.4	4.3	4.6	4.5	4.3	2.3
Transportation Services	1.0	1.0	.9	.8	.8	25.0
Wholesale and Retail Trade	70.4	68.7	68.0	67.3	63.5	10.9
Wholesale Trade	15.2	15.2	14.7	14.4	13.6	11.8
Retail Trade	55.2	53.5	53.3	52.6	49.9	10.6
Building Materials and Garden Supplies	2.0	2.0	2.0	2.0	1.9	5.3
General Merchandise Stores	9.9	9.3	10.0	10.1	9.9	0
Food Stores	9.8	9.2	8.5	8.4	7.6	28.9
Automotive Dealers and Service Stations	5.9	5.8	6.2	6.9	6.3	- 6.3
Apparel and Accessory Stores	2.8	3.0	2.8	2.8	2.8	0
Furniture and Home Furnishings Stores	3.0	2.7	2.8	2.6	2.7	11.1
Eating and Drinking Places	15.9	15.8	15.4	14.7	13.4	18.7
Miscellaneous Retail	6.0	5.8	5.5	5.1	5.3	13.2
Finance, Insurance and Real Estate	14.9	15.2	14.8	14.1	13.3	12.0
Banking	4.7	4.8	4.5	4.2	3.9	20.5
Credit Agencies other than Banks	2.1	2.1	2.0	1.9	1.8	16.7
Insurance Carriers	2.2	2.4	2.3	2.0	1.9	15.8
Insurance Agents, Brokers and Services	1.1	1.1	1.0	1.0	.9	22.2
Real Estate and Other Finance and Insurance	4.4	4.6	4.7	4.1	3.9	12.8
Services and Mining	58.6	56.4	53.6	51.3	46.5	26.0
Hotels and Lodging Places	4.3	3.8	3.9	3.8	3.5	22.9
Personal Services	4.5	4.3	4.3	4.3	4.2	7.1
Business Services	9.3	9.1	8.3	8.3	7.0	32.9
Auto Repair, Services and Garages	2.0	2.0	1.9	1.8	1.6	25.0
Miscellaneous Repair Services	1.5	1.6	1.4	1.2	1.1	36.4
Motion Pictures	.5	.5	.5	.5	.4	25.0
Amusement and Recreation Services	1.6	1.7	1.8	1.8	1.8	- 11.1
Health Services	20.2	19.3	18.0	16.8	15.7	28.7
Legal Services	1.5	1.6	1.5	1.3	1.2	25.0
Educational Services	2.6	2.3	2.1	1.8	1.4	85.7
Social Services	2.3	2.3	2.5	2.4	2.2	4.5
Membership Organizations	3.4	3.3	3.4	3.4	3.2	6.3
Miscellaneous Services	4.0	3.6	3.2	2.8	2.5	60.0
Government	79.7	80.8	80.5	80.2	75.8	5.1
Federal Government	37.1	36.7	36.5	36.6	35.6	4.2
State and Local Government	42.7	44.1	44.0	43.6	40.2	6.2
Education	22.0	22.5	22.5	21.8	20.8	5.8
General	20.7	21.6	21.5	21.8	19.4	6.7

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Norfolk - Virginia Beach - Portsmouth Standard Metropolitan Statistical Area covers the cities of Chesapeake, Norfolk, Porstmouth, Suffolk, and Virginia Beach, Virginia and the county of Currituck, North Carolina.

1/ Not comparable with data for years prior to 1970 due to change in geographic composition of the area. The city of Suffolk and the county of Currituck, North Carolina were included in the employment series beginning with January 1970 data.

2/ Includes furniture and fixtures, primary metal industries, electric and electronic equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, textile mill products, paper and allied products, rubber and miscellaneous plastics products, leather and leather products.

NOTE: Detail may not add to totals due to rounding.

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES

ANNUAL AVERAGES 1980 & 1981

NORFOLK - VIRGINIA BEACH - PORTSMOUTH STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES					
			Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	22.7	22.5	$ 293.45	$ 271.21	41.1	40.6	$ 7.14	$ 6.68
Durable Goods	15.0	14.7	316.50	290.99	42.2	41.1	7.50	7.08
Lumber and Wood Products	1.4	1.5	235.82	210.75	41.3	39.1	5.71	5.39
Stone, Clay and Glass Products	1.2	1.2	267.56	231.86	41.1	39.1	6.51	5.93
Fabricated Metal Products	.7	.8	223.11	221.81	38.6	41.0	5.78	5.41
Machinery, except Electrical	1.1	1.0	248.61	231.09	39.4	40.4	6.31	5.72
Transportation Equipment	7.0	6.6	398.50	365.04	45.7	43.2	8.72	8.45
Nondurable Goods	7.7	7.7	243.36	237.80	39.0	39.9	6.24	5.96
Food and Kindred Products	3.8	3.9	237.55	222.15	39.2	40.1	6.06	5.54
Chemicals and Allied Products	.7	.8	257.94	235.62	39.2	39.8	6.58	5.92

The Norfolk - Virginia Beach - Portsmouth Standard Metropolitan Statistical Area covers the cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach, Virginia and the county of Currituck, North Carolina.

NORTHERN VIRGINIA AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES					
			Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	10.8	10.4	$ 295.20	$ 277.01	40.0	39.8	$ 7.38	$ 6.96
Durable Goods	6.6	6.4	282.21	265.52	40.9	40.6	6.90	6.54
Stone, Clay and Glass Products	.9	1.0	227.63	224.07	37.5	38.5	6.07	5.82
Fabricated Metal Products	.9	1.0	316.73	280.16	42.4	41.2	7.47	6.80
Electric and Electronic Equipment	3.1	2.9	297.90 1/	297.89	43.3	42.8	6.88 1/	6.96
Nondurable Goods	4.2	4.0	313.82	291.43	38.6	38.6	8.13	7.55
Food and Kindred Products	.5	.6	304.72 1/	294.38	41.8	41.0	7.29 1/	7.18

The Northern Virginia Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park and the counties of Arlington, Fairfax, Loudoun, and Prince William.

Average earnings are computed on a gross basis, reflecting not only changes in basis hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

1/ Not comparable with data for prior years.

NOTE: Detail may not add to totals due to rounding.

NORTHERN VIRGINIA AREA

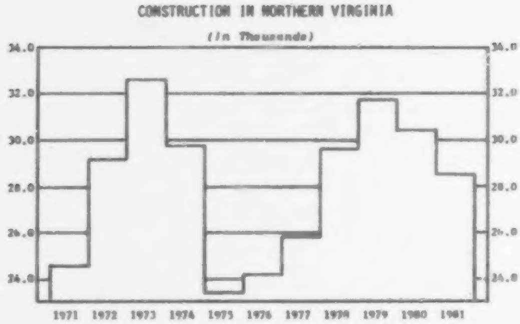
Northern Virginia, a flurry of economic activity, was a major focal point in the State last year. The largest metropolitan area in Virginia led the way in expansion. Nonagricultural employment recorded a plus 10,300 - a 2.3 percent increase over 1980. No other major metropolitan area in the Commonwealth portrayed a more impressive record for this mediocre year.

The Bureau of Census' 1980 population count for cities and counties in Northern Virginia was 1,105,674, an increase of 33.8 percent from the 826,318 inhabitants enumerated in the 1970 census. Virginia's count, at 5,346,279, was up 14.9 percent over 1970. Of the 694,831 additional people in the State, much of this growth was located in Northern Virginia - no doubt the employment level was affected. The increase in population enlarged the need for additional transportation, trade, and various services establishments. State and local school systems were also influenced, to ensure quality education in the area.

Northern Virginia came in first in expansion of the manufacturing sector when compared to other major areas of the State, adding 1,100 to payrolls. The four other areas that had a beneficial impact on employment were Norfolk (+300), Newport News (+300), Richmond (+200), and Bristol (+100). The thriving electric and electronic equipment industry has grown 41.2 percent over the past five years. During 1981 major products of the industry in Northern Virginia included electronic components and communication equipment. Increased interest in computers for both homes and businesses, coupled with a high demand for video games, made electronics a growth area with expansion plans already made for much of the eighties. Printing and publishing was another promising contributor to the advancement of employment. The U. S. Department of Labor's Occupational Handbook (1980-1981 Edition) stated, "the volume of printed materials is expected to increase rapidly because of population growth, the increasingly high literacy level of the population, and the trend to greater use of printed materials for information, packaging, and various industrial purposes." Last year, almost half of the printing establishments in the area dealt in commercial printing, and in consideration of the vast number of other businesses and governments, the demand for this industry's product was not less than encouraging. A noteworthy item in late 1981 was the closing of the Washington Star. Suburban journal papers accepted it as an invitation to step up production and added world or national news, comics or even increased the frequency of publication.

Production workers in manufacturing made a gross weekly earning of $295.20 in 1981 as opposed to $277.01 in 1980 - an increase of $18.19. Average hourly earnings, at $7.38, were up 42 cents over the year. Weekly hours increased two-tenths of an hour over the year-ago level of 39.8 to 40.0 hours. Average weekly hours, a leading economic indicator, helped define the amount of activity in the goods-producing sector, on which the outlook of service-producing segments is dependent. In Northern Virginia, the key divisions of manufacturing in this uptrend were fabricated metal products and the aforementioned electric and electronic equipment with its anticipated bright future.

Construction in Northern Virginia, like the rest of the State, had its problems. Taking a close look at the five year period from 1977 to 1981, in comparison with the time frame beginning with 1971, a close resemblance developed. (See Graph.) Construction grew by leaps and bounds and peaked out in 1973 and 1979, although the latter time frame displayed a lesser degree of acceleration. In both instances, the peak performance years were followed by two years of receding forces. Many have said last year's situation appeared bleak, but the 1981 low was well-above the 1975 level when construction employment bottomed out at less than 24,000. In 1976, construction made a comeback. Perhaps the similarity will continue and 1982 will also prove to be a year of resiliency.



CONSTRUCTION IN NORTHERN VIRGINIA

(In Thousands)

Of the 6,000 gain in transportation and public utilities from 1977 to 1981, communication can be credited with 78.3 percent. Communication employment has skyrocketed via more business activities and new establishments moving into the area. Even with a [illegible]-month strike of approximately 400 telephone workers, the 1981 average was 1,300 above 1980. On the darker side, less business and the high cost of flying plagued the airlines in early 1981. Summer brought more difficulties when the air traffic controllers walked off of their jobs. As a result, many flights were cancelled and the airlines were forced to cut back their payrolls.

Consumer confidence was less than spectacular this year. 1981 was slow for sales and retailers entered the Christmas season, which accounts for more than 40 percent of the year's earnings, with a cautious, yet optimistic attitude. In spite of this retarded activity, employment in trade establishments spiralled upward - surprisingly at a rate greater than the year-to-year increases from 1977 to 1980 A noteworthy highlight in retail trade was the influx of warehouse grocery stores into the area. These no-frills, low-priced outlets started a revolution in local grocery business. Although sales of big-ticket items were down, a side-effect of tight money, furniture and home furnishings stores slipped by with 300 more persons on payrolls. Many general merchandise and miscellaneous retail stores opened new stores in area shopping malls, and together, added 1,800 to payrolls. Eating and drinking places were the big gainers, up 2,500 from 1980.

Services' payrolls swelled in 1981. Health services was one of the major contributors and boosted its employment to 22,200, a 6.2 percent hike over 1980. In the latter part of the year, a walk-in dental service was introduced in area shopping malls. The concept was to make dental care more affordable for the average wage earner. Hotels, also a sustaining force, recorded a plus 200 over the year. As expected, employment was up at day care centers since more mothers returned to work and relied on this up and coming service. Personal services thrived last year - a ripple effect of a growing population. Also, banking contributed the most to the hike in finance, insurance and real estate. Although the housing industry is having problems, real estate picked up 200 workers over the year and was 32.2 percent higher than in 1977. Plusses and minuses in the other divisions negated each other.

In 1981, Reagonomics became a household word. Budgetary cutbacks in federal government spending were prevalent as indicated by the Northern Virginia employment table. Federal government had declined by 1,200 or 1.8 percent since 1980. Funds to state and local governments were reduced, with CETA programs being the most severely affected in Northern Virginia. Public school systems vaulted upward, although 1981 marked the closing of a few area elementary schools. It was mentionable that slashing government payrolls and cutting much of the funding did not have as adverse an effect as expected.

The calendar year 1981 was not the best of years, but Northern Virginia survived. There were problems, but they were overshadowed by the area's assets.

Judith S. Thrash

ESTIMATED EMPLOYMENT IN NORTHERN VIRGINIA AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL	464.9	454.6	434.6	408.7	381.1	22.0
MANUFACTURING	20.0	18.9	17.5	15.4	14.3	39.9
Durable Goods	12.3	11.9	10.9	9.7	9.2	33.7
Stone, Clay and Glass Products	1.0	1.1	1.1	1.0	.7	42.9
Fabricated Metal Products	1.1	1.2	1.2	1.1	1.1	0
Machinery, except Electrical	.7	.6	.7	.7	.6	16.7
Electric and Electronic Equipment	7.2	6.8	5.8	5.0	5.1	41.2
Other Durable Goods 1/	2.3	2.2	2.1	1.9	1.7	35.3
Nondurable Goods	7.7	7.0	6.6	5.7	5.1	51.0
Food and Kindred Products	1.1	1.1	1.1	1.1	1.2	- 8.3
Printing and Publishing	5.0	4.6	4.4	3.6	3.1	61.3
Other Nondurable Goods 2/	1.6	1.3	1.1	1.0	.8	100.0
NONMANUFACTURING	444.9	435.7	417.1	393.3	366.8	21.3
Mining	.4	.4	.4	.3	.3	33.3
Construction	28.5	30.4	31.7	29.6	25.8	10.5
General Building Contractors	7.5	7.9	9.2	8.8	7.3	2.7
Heavy Construction Contractors	3.5	4.1	4.0	4.0	3.5	0
Special Trade Contractors	17.5	18.4	18.5	16.8	15.0	16.7
Transportation and Public Utilities	32.0	31.8	28.6	26.9	26.0	23.1
Railroad Transportation	1.0	1.1	1.1	1.1	1.2	- 16.7
Local and Interurban Passenger Transit	1.1	1.1	1.0	1.1	1.3	- 15.4
Trucking and Warehousing	4.6	4.6	4.6	4.3	4.1	12.2
Transportation by Air	8.9	9.7	8.9	8.9	8.9	0
Transportation Services	1.3	1.7	1.6	1.1	.9	44.4
Communication	11.3	10.0	8.0	7.1	6.6	71.2
Electric, Gas and Sanitary Services	3.7	3.5	3.3	3.2	3.0	23.3
Wholesale and Retail Trade	111.6	105.1	100.6	96.1	90.8	22.9
Wholesale Trade	21.8	20.4	18.1	16.9	15.7	38.9
Wholesale Trade-Durable Goods	16.2	15.6	13.9	12.9	11.8	37.3
Wholesale Trade-Nondurable Goods	5.7	4.8	4.2	4.0	3.9	46.2
Retail Trade	89.8	84.7	82.5	79.2	75.1	19.6
Building Materials and Garden Supplies	3.0	2.9	2.9	2.8	2.7	11.1
General Merchandise Stores	13.7	13.0	13.5	13.2	12.6	8.7
Food Stores	10.2	10.1	9.3	9.0	8.8	15.9
Automotive Dealers and Service Stations	11.2	11.4	12.0	12.4	11.6	- 3.4
Apparel and Accessory Stores	6.1	5.5	5.3	5.2	4.9	24.5
Furniture and Home Furnishings Stores	4.3	4.0	3.9	3.8	3.5	22.9
Eating and Drinking Places	27.7	25.2	24.1	22.4	21.1	31.3
Miscellaneous Retail	13.7	12.6	11.5	10.4	9.9	38.4
Finance, Insurance and Real Estate	29.1	28.6	27.4	25.2	23.6	23.3
Banking	6.5	6.2	5.8	5.6	5.3	22.6
Credit Agencies other than Banks	4.2	4.4	4.2	3.5	3.0	40.0
Insurance Carriers	3.6	3.6	3.7	3.7	3.4	5.9
Insurance Agents, Brokers and Service	1.5	1.6	1.5	1.4	1.4	7.1
Real Estate	11.9	11.7	10.9	9.6	9.0	32.2
Services	124.6	120.6	111.7	100.2	89.3	39.5
Hotels and Other Lodging Places	7.2	7.0	6.6	6.1	5.7	26.3
Personal Services	6.6	6.3	6.0	5.9	5.7	15.8
Business Services	43.2	43.1	40.1	34.1	29.7	45.5
Auto Repair, Services and Garages	3.4	3.4	3.4	3.2	2.7	25.9
Miscellaneous Repair Services	1.1	1.2	1.2	1.0	.8	37.5
Motion Pictures	.7	.8	.7	.8	.6	16.7
Amusement and Recreation Services	3.8	3.7	3.4	3.3	3.1	22.6
Health Services	22.2	20.9	19.7	18.6	17.8	24.7
Legal Services	3.2	3.0	2.8	2.5	2.3	39.1
Educational Services	3.7	3.6	3.6	3.5	3.4	8.8
Social Services	3.7	3.4	3.0	2.5	2.2	68.2
Membership Organizations	8.7	8.4	7.6	6.9	5.9	47.5
Miscellaneous Services	15.1	13.7	11.9	10.2	8.2	84.1
Agricultural Services	1.6	1.9	1.7	1.3	1.2	33.3
Government	118.8	118.8	116.7	115.0	111.0	7.0
Federal Government	65.3	66.5	66.4	65.6	64.6	1.1
State and Local Government	53.5	52.3	50.3	49.4	46.4	15.3
Education	32.3	30.8	29.3	28.9	28.3	14.1
General	21.3	21.5	21.0	20.5	18.1	17.7

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure in accordance with the 1972 Standard Industrial Classification Manual.

The Northern Virginia Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park and the counties of Arlington, Fairfax, Loudoun, and Prince William.

1/ Includes lumber and wood products, furniture and fixtures, primary metal industries, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

2/ Includes tobacco manufactures, textile mill products, apparel and other textile products, paper and allied products, chemicals and allied products, petroleum and coal products, and rubber and miscellaneous plastics products.

NOTE: Detail may not add to totals due to rounding.

RICHMOND STANDARD METROPOLITAN STATISTICAL AREA

Nonagricultural employment in the Richmond Standard Metropolitan Statistical Area inched forward during 1981 to average 327,700. The manufacturing, services, trade, and transportation and public utilities divisions contributed to the uptrend but at a very sluggish pace. Decreases by construction; government; and the finance, insurance, and real estate segments negated much of the uptrend.

Richmond's strong and diverse manufacturing sector has recorded growth in recent years with an 8.7 percent gain in workers over 1977 to total 56,500 in 1981. There were more than 600 manufacturing firms in the area, which accounted for almost fourteen percent of all Virginia's manufacturing jobs. Among nondurable goods producers, the tobacco industry alone had about seventy-three percent of the State's tobacco workers and the chemical industry employed approximately twenty-five percent of Virginia's chemical work force. Over-the-year trends for both sectors showed gains in personnel. More than twenty-four percent of the State's printing and publishing employment was located here and the yearly trend was also upward. Changes in the food and kindred products and in the paper and allied products industries were null from 1980 to 1981, while apparel and other textile products reported a decrease of thirteen percent of its work force, down to 2,000. Durable goods producers trended down as a whole. The lumber and wood products industry was hardest hit, because of the slumping housing industry. Compared to 1980 data, cutbacks in wage earners were noted, which left employment at about 1,500. Sawmills began to shut down and curtail production because of the faltering economy. Analysts said that if the housing and construction markets continue to be depressed so will the lumber industry. Declines were also recorded by furniture and fixtures manufacturers. More than one-third of Virginia's primary metal employment was located in the Richmond Area and greatly influenced the economy. Nationwide, Reynolds Metals Company recycled a record-breaking 328 million pounds of consumer-generated aluminum during 1981. Through a subsidiary the most extensive consumer recycling operation in this industry took place, with the public being paid $90 million for recyclable aluminum. Several new manufacturers moving into the area and others expanding their businesses, created new jobs. This should enhance manufacturing employment during the years to come.

The number of production workers (37,700) remained the same as that of the previous year; however, the average hourly earnings increased by 74 cents to $8.70. Average weekly hours for the year went up by three-tenths of an hour, from 40.0 hours to an average of 40.3 hours in 1981. The results of these increases gave the Richmond production worker an average weekly earning of $350.61 in 1981, an increase of $32.21 over the year.

Nonmanufacturing employment comprised about 83 percent of the nonagricultural work force. A minimal gain brought employment up to 271,200 in 1981. Wholesale and retail trade, the largest nonmanufacturing sector, showed a rise of four-tenths percent to 76,200. Wholesale trade, which showed an increase of about 700 people, was responsible for this encouraging trend. Retail trade on the other hand lost momentum by eight-tenths percent, down to 52,400 in 1981 when compared with 1980. General merchandise stores accounted for most of the decrease, with a 6.8 percent drop - down to 10,900 for the year. Temporary and permanent shutdowns and layoffs contributed to most of this negative activity, with several stores closing because of declining sales. In spite of these downtrends, several new shopping centers opened, housing a variety of stores, which softened the blow of layoffs experienced by some firms in this segment.

Services comprised slightly over twenty-two percent of the nonmanufacturing work force and reported a gain of 3.3 percent over 1980 figures to 60,100 workers. An 18.1 percent rise over the 1977 total of 50,900 was noted. Seasonal ups and downs were normal in this industry, especially in educational services, and amusement and recreational services. Kings Dominion enjoyed its seasonal increase in business, while hotels and other lodging places reaped the benefits of the tourist season. Richmond Area's tourist business was at near record levels during the first eight months of 1981, according to the Metropolitan Richmond Chamber of Commerce.

The year 1981 has been noted as a poor year for housing sales. The Richmond Multiple Listing Service reported 5,176 contract closings in 1981, down from 6,487 in 1980. Only in January, June, and July were the monthly figures greater than for the corresponding periods of the previous year. Realtors blamed the high cost of mortgage money for the bad year. The median interest rate for 1981 was 16 1/4 percent, up substantially from the thirteen percent median rate in 1980. As a result, buyers had to concentrate just as much on getting the best mortgage as on finding the best property. Banking held its own over the year, while credit agencies lost vitality because of high interest rates. The savings and loan industry viewed 1981 as a critical year because of negative earnings, and mergers of weak institutions with stronger ones were quite numerous.

All divisions of construction showed losses during the year. A 7.9 percent drop brought employment down to 17,500 in 1981 from the 1980 total. High interest rates hampered home building and decreased revenues for road construction pushed worker totals down. Although construction's employment decreased for the year, the value of building contracts let in the metropolitan area was $400.27 million, an increase of twenty-three percent above the 1980 figure of $325.97 million.

Government lost momentum over the year with a decrease in employment of approximately eight-tenths percent and was down to 71,000 in 1981. Federal government employment held steady. Cutbacks in funds, particularly in CETA programs, along with reductions by several state agencies lowered both state and local government employment 600 for the year.

Many of the nation's economic problems were avoided in the Richmond Area because of the high percentage of wholesale and retail trade, and State government employees. As we gaze into the future, we look ahead with positive expectations because the Richmond Area had made plans to attract new businesses into the community. If these plans are successful, the Capital of Virginia and the surrounding counties will remain economically uplifted.

Sandra E. Anderson

ESTIMATED EMPLOYMENT IN RICHMOND AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1977 - 1981

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent From
	1981	1980	1979	1978	1977	1977 - 1981
NONAGRICULTURAL 1/	327.7	327.4	326.9	314.2	296.6	10.5
MANUFACTURING	56.5	56.3	55.8	53.5	52.0	8.7
Durable Goods	17.2	17.8	17.9	17.0	16.4	4.9
Lumber and Wood Products	1.5	1.7	1.7	1.4	1.5	0
Furniture and Fixtures	1.7	1.8	2.3	2.2	2.0	- 15.0
Stone, Clay and Glass Products	1.3	1.3	1.3	1.3	1.3	0
Fabricated Metal Products	2.4	2.4	2.3	2.4	2.4	0
Machinery, except Electrical	2.2	2.1	2.0	2.0	2.1	4.8
Other Durable Goods 2/	8.0	8.5	8.3	7.7	7.1	12.7
Nondurable Goods	39.4	38.5	37.9	36.5	35.6	10.7
Food and Kindred Products	4.2	4.2	4.3	4.2	4.2	0
Tobacco Manufactures	13.7	13.1	12.1	11.2	10.6	29.2
Apparel and Other Textile Products	2.0	2.3	2.5	2.5	2.5	- 20.0
Paper and Allied Products	4.2	4.2	4.1	3.9	3.8	10.5
Printing and Publishing	5.5	5.2	5.1	5.0	4.8	14.6
Chemicals and Allied Products	8.3	8.1	7.9	7.8	7.9	5.1
Other Nondurable Goods 3/	1.5	1.4	1.9	1.9	1.8	- 16.7
NONMANUFACTURING	271.2	271.1	271.1	261.7	244.6	10.9
Mining	.3	.3	.4	.4	.3	0
Construction	17.5	19.0	20.8	19.0	17.1	2.3
General Building Contractors	4.1	4.3	5.0	4.6	4.3	- 4.7
Heavy Construction Contractors	2.3	3.0	3.4	3.0	2.4	- 4.2
Special Trade Contractors	11.0	11.7	12.4	11.4	10.4	5.8
Transportation and Public Utilities	19.7	19.6	19.4	18.6	18.2	8.2
Railroad Transportation	1.8	1.8	1.8	2.0	2.2	- 18.2
Trucking and Warehousing	5.9	6.4	6.6	6.5	6.4	- 7.8
Wholesale and Retail Trade	76.2	75.9	75.3	73.4	68.5	11.2
Wholesale Trade	23.8	23.1	22.6	21.7	20.6	15.5
Retail Trade	52.4	52.8	52.7	51.7	47.9	9.4
Building Materials and Garden Supplies	1.7	1.6	1.6	1.5	1.4	21.4
General Merchandise	10.9	11.6	11.9	11.8	11.7	- 6.8
Food Stores	7.4	7.5	7.3	6.8	6.4	15.6
Automotive Dealers and Service Stations	5.7	5.8	6.1	6.3	6.1	- 6.6
Apparel and Accessory Stores	3.5	3.1	3.2	3.4	3.1	12.9
Furniture and Home Furnishings Stores	2.7	2.8	2.8	2.7	2.4	12.5
Eating and Drinking Places	13.6	13.5	13.2	12.8	11.1	22.5
Miscellaneous Retail	6.9	6.9	6.7	6.4	5.7	21.1
Finance, Insurance and Real Estate	26.4	26.5	26.2	24.7	23.3	13.3
Banking	8.4	8.4	7.1	5.5	5.3	58.5
Credit Agencies other than Banks	2.1	2.2	2.4	2.3	2.1	0
Security, Commodity Brokers and Services	1.1	1.0	.9	.7	.8	37.5
Insurance Carriers, Agents, Brokers and Services	10.5	10.3	10.2	9.9	9.4	11.7
Real Estate and Other Finance and Insurance	4.3	4.5	5.6	6.3	5.7	- 24.6
Services	60.1	58.2	57.9	55.0	50.9	18.1
Hotels and Other Lodging Places	2.7	2.8	2.7	2.7	2.7	0
Personal Services	3.8	3.5	3.4	3.4	3.4	11.8
Business Services	13.3	12.9	13.1	13.4	11.9	11.8
Automobile Repair, Services and Garages	2.1	2.3	2.4	2.2	1.8	16.7
Miscellaneous Repair Services	.9	.9	.9	.8	.8	12.5
Motion Pictures, Amusement, and Recreation Services	3.2	3.3	3.1	3.0	2.8	14.3
Health Services	15.7	15.0	14.3	13.1	12.6	24.6
Legal Services	2.2	2.1	1.9	1.7	1.6	37.5
Educational Services	3.5	3.4	3.3	3.2	3.0	16.7
Social Services	4.5	4.0	3.7	3.2	2.8	60.7
Membership Organizations	4.2	4.1	4.5	4.6	4.4	- 4.6
Miscellaneous Services	2.8	2.8	2.6	2.5	2.1	33.3
Government	71.0	71.6	71.1	70.6	66.3	7.1
Federal Government	9.2	9.2	8.4	8.2	8.3	10.8
State and Local Government	61.8	62.4	62.7	62.4	58.0	6.6
Education	25.0	25.0	24.0	23.9	22.5	11.1
General	36.3	37.4	38.7	38.5	35.5	3.7

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to 1st Qtr. 1981 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Richmond Standard Metropolitan Statistical Area covers the city of Richmond and the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan.

1/ Not comparable with data for years prior to 1970. Charles City, Goochland, New Kent, and Powhatan counties included in the metropolitan area series beginning with data for January 1970.

2/ Includes primary metal industries, electric and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes textile mill products, petroleum and coal products, rubber and miscellaneous plastics products, and leather and leather products.

NOTE: Detail may not add to totals due to rounding.

THE MARKET BASKET

FOR THE

RICHMOND METROPOLITAN AREA

NORTHERN VIRGINIA METROPOLITAN AREA

NORFOLK-VIRGINIA BEACH-PORTSMOUTH METROPOLITAN AREA

The Virginia Department of Labor and Industry's Market Basket has been designed to measure the price change in the retail cost of a fixed quantity of foods. The cost of the Market Basket is derived by multiplying the average retail price of each item by the quantity and totaling the entire group. This permits a comparison of prices on a month-to-month basis. The Market Basket combines 40 of the 71 items priced during the same period of time each month at selected stores throughout the areas. The Market Basket represents neither the cost of food for a family of one particular size or income group, nor every change in food prices, but only an increase or decrease in the total cost of items in the Market Basket.

The current Market Basket for the Richmond and Norfolk-Virginia Beach-Portsmouth Metropolitan Areas may be compared with the series that began in July 1979, and the Northern Virginia Metropolitan Area with the series that began in January 1981. The quantity consumed and the 40 commodities included in this study are listed in a table below. For a number of food items, the quantity consumed in the Market Basket is listed as a fraction or a multiple of the unit that is priced.

1 lb.	Round Steak	1 bunch	Carrots	10 qts.	Milk
1 lb.	Bacon	1 stalk	Celery	1 pt.	Ice Cream
1 lb.	Hamburger	1 can	Tuna	2 doz.	Eggs
1 lb.	Frankfurters	1 can	Corn	½ lb.	American Processed Cheese
2 lbs.	Pork Chops	1 can	Peas		
2 lbs.	Chicken	1 can	Tomatoes	2 cans	Evapor. Milk
1 lb.	Frozen Fish	1 can	Peaches	1 lb.	Margarine
1 doz.	Oranges	1 can	Soup	1 lb.	Shortening
1 lb.	Apples	1 pkg.	Fro. Green Beans	1 lb.	Coffee
2 lbs.	Bananas	5 cans	Fro Orange Juice	5 lbs.	Sugar
10 lbs.	Potatoes	4 lbs.	Flour	1 jar	Peanut Butter
2 lbs.	Cabbage	2 bxs.	Prepared Cereal	1 10 oz. Jar	Jelly
1 head	Lettuce	1 bx.	Soda Crackers	1 ctn.	Soft Drinks
1 lb.	Onions	6 loaves	Bread		

The average cost of the Market Basket in 1981 increased 7.5 percent to $59.18 in the Norfolk area, 7.0 percent to $59.42 in the Richmond area and stood at $60.17 with the resumption of the Northern Virginia area survey. Price peaks occurred in July at $60.22 for Norfolk, in March at $60.97 for Richmond, and in January at $64.22 for Northern Virginia. Lowest totals were recorded for Norfolk in November at $58.12, for Richmond in November at $57.74 and for Northern Virginia in July at $58.34.

Though prices were higher overall than last year for Norfolk and Richmond, the rate of increase was slower and the range between the highs and lows was much smaller. Northern Virginia started at a record high, dropped sharply and then stabilized.

RETAIL FOOD PRICE COMPARISON - JANUARY 1981 - DECEMBER 1981

COMMODITY AND UNIT		RICHMOND			NORFOLK - VIRGINIA BEACH - PORTSMOUTH			NORTHERN VIRGINIA		
		Jan. 1981	Dec. 1981	Change (Cents)	Jan. 1981	Dec. 1981	Change (Cents)	Jan. 1981	Dec. 1981	Change (Cents)
CEREAL AND BAKERY PRODUCTS										
Flour	5 lb.	113.8	109.9	- 3.9	114.4	113.4	- 1.0	147.9	106.4	- 41.5
Cracker Meal	9 1/2 oz.	97.1	99.0	1.9	94.7	99.1	4.4	100.8	98.1	- 2.7
Corn Flakes	12 oz.	86.8	89.5	2.7	84.2	90.1	5.9	93.3	93.2	- .1
Rolled Oats	18 oz.	91.8	92.0	.2	88.8	91.2	2.4	91.6	86.3	- 5.3
Rice	lb.	53.3	57.9	4.6	59.7	63.0	3.3	44.9	60.2	15.3
Bread, white	lb.	61.8	67.4	5.6	63.0	68.3	5.3	69.0	75.0	6.0
Vanilla Cookies	12 oz.	98.0	107.8	9.8	102.1	93.6	- 8.5	103.8	119.9	16.1
Crackers, soda	lb.	85.0	87.8	2.8	83.6	85.9	2.3	90.9	87.0	- 3.9
MEATS, POULTRY AND FISH										
Beef and Veal:										
Round Steak U. S. Choice	lb.	333.6	301.4	- 32.2	331.4	307.9	- 23.5	362.1	282.4	- 79.7
Rib Roast U. S. Choice 5" cut	lb.	332.1	330.5	- 1.6	346.9	357.2	10.3	318.2	312.5	- 5.7
Chuck Roast U. S. Choice	lb.	185.1	176.3	- 8.8	185.1	170.1	- 15.0	182.5	169.8	- 12.7
Hamburger	lb.	155.8	143.7	- 12.1	167.0	149.0	- 18.0	157.0	160.5	3.5
Veal Cutlets U. S. Choice	lb.	625.8	742.9	117.1	625.8	605.5	- 20.3	647.3	698.1	50.8
Pork:										
Chops, Center Cut	lb.	229.4	241.8	12.4	221.2	227.1	5.9	266.9	246.8	- 20.1
Bacon, sliced	lb.	194.3	195.5	1.2	187.0	193.3	6.3	178.2	187.5	9.3
Ham, whole	lb.	143.8	142.0	- 1.8	159.2	154.8	- 4.4	145.8	141.5	- 4.3
Sausage	lb.	123.1	157.3	34.2	123.6	156.2	32.6	126.7	148.4	21.7
Other Meats:										
Canned Ham	lb.	249.2	249.0	- .2	257.0	239.3	- 17.7	278.9	273.3	- 5.6
Bologna Sausage	1/2 lb.	125.2	114.7	- 10.5	121.7	114.8	- 6.9	138.7	121.4	- 17.3
Frankfurters	lb.	191.2	171.7	- 19.5	181.6	171.3	- 10.3	193.7	189.7	- 4.0
Fryers, dressed and drawn	lb.	68.1	67.2	- .9	71.2	69.6	- 1.6	68.6	62.0	- 6.6
Fish:										
Ocean Perch Fillet, frozen	lb.	203.5	205.8	2.3	199.7	214.6	14.9	184.6	208.4	23.8
Haddock Fillet, frozen	lb.	264.9	255.6	- 9.3	279.0	254.3	- 24.7	255.8	263.8	8.0
Tuna	6 1/2 oz. can	103.8	100.4	- 3.4	100.4	104.1	3.7	115.0	98.2	- 16.8
Salmon	lb. can	237.6	233.4	- 4.2	234.1	243.2	9.1	245.5	237.9	- 7.6
Sardines	3 3/4 oz.	89.8	91.4	1.6	87.7	86.0	- 1.7	98.5	94.9	- 3.6
DAIRY PRODUCTS										
Butter	lb.	212.5	209.5	- 3.0	211.9	209.5	- 2.4	229.2	203.4	- 25.8
Cheese, American process	1/2 lb.	120.9	120.2	- .7	117.5	120.2	2.7	129.9	123.2	- 6.7
Milk, fresh (grocery)	1/2 gal.	110.9	108.6	- 2.3	116.8	122.3	5.5	116.9	100.5	- 16.4
Ice Cream	1/2 gal.	240.9	256.1	15.2	260.7	247.1	- 13.6	244.7	243.6	- 1.1
Milk, evaporated	14 1/2 oz. can	51.9	51.0	- .9	53.0	51.4	- 1.6	62.2	51.6	- 10.6
EGGS, fresh grade A large	doz.	98.3	98.7	.4	100.2	95.3	- 4.9	103.4	104.2	.8
FRUITS AND VEGETABLES										
Frozen:										
Orange Juice, concentrate	6 oz.	57.2	68.9	11.7	55.6	67.0	11.4	61.2	63.6	2.4
Lemonade, concentrate	6 oz.	35.1	36.3	1.2	35.0	38.3	3.3	39.2	42.8	3.6
Peas	10 oz.	40.6	51.8	11.[illegible]	43.6	48.9	5.3	63.1	55.0	- 8.1
Beans, green	9 oz.	53.2	54.6	[illegible].4	53.0	53.1	.1	73.5	57.4	- 16.1
Broccoli	10 oz.	60.4	62.4	2.0	60.7	66.4	5.7	77.0	72.0	- 5.0
Potatoes, French fried	9 oz.	36.4	39.[illegible]	3.4	33.3	37.2	3.9	N.A.	39.8	N.A
Fresh:										
Apples, winesap	lb.	46.1	54.3	8.2	50.6	49.6	- 1.0	43.8	53.5	9.7
Bananas	lb.	33.3	36.2	2.9	32.1	35.5	3.4	35.3	34.0	- 1.6
Oranges - size 200	doz.	117.7	148.9	31.2	122.2	166.0	43.8	161.4	145.3	- 16.1
Beans, green	lb.	91.3	82.9	- 8.4	89.4	73.8	- 15.6	91.2	84.2	- 7.0
Cabbage	lb.	29.4	19.8	- 9.6	27.4	19.9	- 7.5	31.9	23.0	- 8.9
Carrots	1 lb. cello bag	46.3	43.6	- 2.7	45.3	42.2	- 3.1	48.5	46.1	- 2.4
Celery	stalk	79.4	76.2	- 3.2	67.3	70.6	3.3	85.1	70.6	- 14.5
Lettuce - size 48	head	61.4	72.3	10.9	60.0	62.8	2.8	57.3	79.6	22.3
Onions	lb.	29.8	31.6	1.8	32.8	28.9	- 3.9	33.2	34.5	1.3
Potatoes	10 lb.	229.5	174.8	- 54.7	203.7	165.4	- 38.3	253.8	174.5	- 79.3
Sweet Potatoes	lb.	45.3	44.7	- .6	41.1	41.9	.8	43.7	49.4	5.7
Tomatoes	lb.	76.2	59.4	- 16.8	70.8	60.7	- 10.1	73.4	56.2	- 17.2
Canned:										
Peaches	No. 2 1/2 can	98.9	104.4	5.5	94.9	98.6	3.7	104.4	100.7	- 3.7
Fruit Cocktail	No. 303 can	75.9	73.8	- 2.1	71.7	72.1	.4	78.3	68.9	- 9.4
Corn	No. 303 can	50.6	51.4	.8	45.9	50.3	4.4	50.9	48.7	- 2.2
Tomatoes	No. 303 can	37.4	46.4	9.0	39.4	42.3	2.9	43.1	52.4	9.3
Peas, fancy	No. 303 can	50.0	50.2	.2	49.2	53.8	4.6	57.3	49.2	- 8.1
Beets, sliced	No. 303 can	41.6	43.2	1.6	46.6	44.8	- 1.8	38.5	49.0	10.5
Bean Soup	11 1/2 oz. can	39.1	41.2	2.1	39.2	41.8	2.6	42.6	40.3	- 2.3
Tomato Soup	10 3/4 oz. can	29.3	27.6	- 1.7	27.8	27.6	- .2	32.2	26.6	- 5.6
Baby Foods, strained	4 3/4 oz.	24.0	25.2	1.2	24.0	23.3	- .7	26.4	25.1	- 1.3
Dried:										
Navy Beans	lb.	52.3	63.2	10.9	50.7	57.4	16.7	51.2	69.6	18.4
BEVERAGES										
Coffee	lb.	302.9	245.9	- 57.0	302.4	255.7	- 46.7	283.3	240.2	- 43.1
Coffee, instant	6 oz.	330.4	293.8	- 36.6	328.1	290.4	- 37.7	398.1	301.9	- 96.2
Tea	48 bags	148.3	137.5	- 10.8	143.0	143.2	.2	161.8	144.4	- 17.4
Cola Drink (8 bottles)	16 oz.	212.7	227.6	14.9	168.7	212.3	43.6	256.7	250.6	- 6.1
FATS AND OILS										
Salad and Cooking Oil	pt.	111.2	109.4	- 1.8	109.7	103.7	- 6.0	116.0	112.8	- 3.2
Shortening	3 lb.	240.6	229.0	- 11.6	234.4	230.6	- 3.8	290.6	224.7	- 65.9
Salad Dressing	pt.	101.7	98.4	- 3.3	100.9	98.0	- 2.9	106.2	94.6	- 11.6
Peanut Butter	16 oz.	157.3	194.7	37.4	170.1	190.9	20.8	198.9	202.1	3.2
Margarine	lb.	72.1	72.6	.5	74.8	71.2	- 3.6	92.0	66.4	- 25.6
SUGAR AND SWEETS										
Sugar, granulated	5 lb.	299.7	164.0	-135.7	304.9	175.7	-129.2	317.4	176.5	-140.9
Grape Jelly	10 oz.	79.2	82.4	3.2	80.7	82.6	1.9	88.8	89.1	.3

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES

RICHMOND STANDARD METROPOLITAN STATISTICAL AREA

ANNUAL AVERAGES 1980 & 1981

INDUSTRY GROUP	PRODUCTION WORKERS		AVERAGE WEEKLY EARNINGS		AVERAGE WEEKLY HOURS		AVERAGE HOURLY EARNINGS	
	1981	1980	1981	1980	1981	1980	1981	1980
MANUFACTURING	37.7	37.7	$ 350.61	$ 318.40	40.3	40.0	$ 8.70	$ 7.96
Durable Goods	10.6	11.1	327.64	301.92	40.4	40.8	8.11	7.40
Lumber and Wood Products	1.3	1.5	213.72	190.00	40.4	40.0	5.29	4.75
Furniture and Fixtures	1.4	1.4	186.81	180.97	39.0	39.6	4.79	4.57
Primary Metal Industries	1.4	1.6	479.57	478.61	40.3	41.8	11.90	11.45
Fabricated Metal Products	1.9	1.9	393.72	371.13	40.8	41.1	9.65	9.03
Fabricated Structural Metal Products	1.4	1.4	437.13	412.82	41.2	41.2	10.61	10.02
Nondurable Goods	27.1	26.6	360.10	323.95	40.1	39.7	8.98	8.16
Food and Kindred Products	2.9	2.9	242.88	225.59	38.8	38.3	6.26	5.89
Tobacco Manufactures	9.3	8.9	429.63	393.57	39.2	39.2	10.96	10.04
Cigarettes	8.6	8.3	438.45	400.86	39.5	39.3	11.10	10.20
Apparel and Other Textile Products	1.8	1.9	185.72	160.74	39.6	38.0	4.69	4.23
Paper and Allied Products	3.3	3.3	323.67	290.21	42.2	41.4	7.67	7.01
Printing and Publishing	3.7	3.5	341.88	316.91	38.5	38.6	8.88	8.21
Chemicals and Allied Products	5.0	4.9	400.89	356.18	41.5	40.8	9.66	8.73

The Richmond Standard Metropolitan Statistical Area covers the city of Richmond and the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan.

Average earnings are computed on a gross basis, reflecting not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

ANNUAL SURVEY OF VIRGINIA MANUFACTURES, 1980

Virginia's manufacturing sector slowed considerably over the course of 1980 as high interest rates, inflation, and election year anticipation all applied economic brakes to growth. Sluggishness in several key fields, automobiles and housing in particular, affected correlated industries such as lumber and wood products; furniture and fixtures; stone, clay, and glass products; primary and fabricated metals; and textiles.

Overall employment growth was held to a meager 0.2 percent for the first time in several years. Nondurable goods, up 0.7 percent, outgained durables, which dropped 0.5 percent from 1979. At the durable level, gains were made by transportation equipment, 10.7 percent; electric and electronic equipment, 6.3 percent; and nonelectrical machinery, 2.0 percent. Reductions were more numerous as interdependent industries' fortunes declined. Miscellaneous manufacturing industries' 28.9 percent employment drop led the cutbacks, followed by lumber and wood products' 10.8 percent; furniture and fixtures' 6.3 percent; and primary metal products' 6.0 percent. Meanwhile, nondurables saw a 0.8 percent increase. Chief contributors included tobacco manufactures, up 9.2 percent; printing and publishing, 6.7 percent; and paper and allied products, 3.4 percent. Losses by petroleum and coal products-miscellaneous plastics products of 7.0 percent and leather and leather products, 5.3 percent all reduced potential growth. Production worker totals followed total employment trends in most sub-catagories, but total production worker employment dropped 0.1 percent.

At the 1980 payroll window, all employees drew 9.8 percent more in salaries and wages than in 1979. Boosted to $14,643, the average salary and wage figure was up 9.6 percent for total workers in 1980. Though fewer in number than the previous year, production workers earned 10.1 percent more than in 1979. Average wages increased 10.3 percent to $12,718. Nondurable goods continued to dominate the statistics for overall pay as it exceeded both durable and total manufacturing salary and wage, and wage gains at 10.0 and 10.4 percent respectively. Good salary and wage gains were recorded by tobacco manufactures, 30.2 percent; paper and allied products, 16.8 percent; printing and publishing, 16.4 percent; and chemicals and allied products, 7.5 percent. Corresponding production worker pay raises amounted to: 31.8, 19.6, 13.4, and 5.3 percent respectively. Durable goods fared less well due to the adverse economic climate but still recorded overall gains of 9.5 and 9.8 percent for salaries and wages and production wages. Prominent advances included electric and electronic equipment, 20.9 percent; transportation equipment, 14.4 percent; instruments and related products, 11.9 percent; machinery, except electrical, 9.9 percent; and stone, clay, and glass products, 8.5 percent. Production workers' wages for these same industries paralleled the increases with gains of 25.3, 16.1, 28.3, 9.0, and 3.0 percent. Payroll retrenchments occurred among miscellaneous manufacturing industries, down 23.0 percent and lumber and wood products off 4.0 percent, with the production wages down 16.5 and 6.0 percent respectively.

Despite the ruggedness of the economic trail, Virginia manufacturing responded with a $16,315,128,000 effort in value added by manufactures for a 13.9 percent increase over 1979. With no losses at major industry levels, nondurables made the best of a slow situation and tallied a 15.4 percent increment for 1980. Major contributors included petroleum and coal products-rubber and miscellaneous plastics products, up 38.0 percent; tobacco manufactures, 25.8 percent; leather and leather products, 23.9 percent; paper and allied products, 19.6 percent; food and kindred products, 16.0 percent; and chemicals and allied products, 10.0 percent. Hard goods lagged behind in growth again during 1980. With the exception of miscellaneous manufacturing industries, which fell 28.6 percent, and lumber and wood products, down 18.9 percent; many good-sized gains occurred. Leading durable goods categories included: instruments and related products, 32.7 percent; primary metal industries, 27.2 percent; fabricated metal products, 25.7 percent; electric and electronic equipment, 17.3 percent; machinery, except electrical, 15.6 percent; and transportation equipment which gained 14.5 percent.

Over the course of 1980, a number of expansions and new firms were unveiled or projected. The 99 anouncements by the Virginia Division of Industrial Development included 39 new operations and 60 expansions of current facilities with proposed employment of 4,107 and 4,818 respectively, for a total of 8,925 additional jobs. The 1980 figures hint at possible trends as expansion of existing facilities overshadowed new construction in both occurrence and proposed employment. Variety marked the industrial mix of development as 18 out of 20 manufacturing categories were represented.

Meanwhile, business owners reached into their wallets and came up with a 36.8 percent increase in capital improvements over 1979. In spite of the previous year's caution, 1980's capital expenditures were a strong 47.7 percent above the $1,275,118,000 anticipated capital expenditure projection during 1979. Nondurable goods' strength continued to stand out with a 41.6 percent gain over 1979 totals. Major spending was done by paper and allied products, up 356.3 percent; petroleum and coal products-rubber and miscellaneous plastics products, 155.0 percent; tobacco manufactures, 103.5 percent; leather and leather products, 91.0 percent; and chemicals and allied products, 48.5 percent. Reductions for capital outlays occurred in apparel and other textile products, down 30.7 percent; and food and kindred products, 28.6 percent. Showing a 23.7 percent overall gain, durable goods' capital expenditures were boosted by the 178 percent increase for instruments and related products; 116.7 percent for electric and electronic equipment; 71.5 percent for machinery, except electrical; 27.9 percent for stone, clay, and glass products; and 23.0 percent for fabricated metal products. The most significant losses were in miscellaneous manufacturing industries, down 50.2 percent; primary metal industries, 44.1 percent; and lumber and wood products, 16.6 percent.

Despite all the undercurrents of pessimism, uncertainty, and business malaise, some industries were willing to press ahead as illustrated in the 36.3 percent expansion in anticipated capital expenditures. Durable goods enjoyed a slight edge and showed a 36.7 percent expansion with notable upswings by electric and electronic equipment of 182.6 percent; instruments and related products, 64.7 percent; stone, clay, and glass products, 47.3 percent; and miscellaneous manufacturing industries 26.5 percent. Retreating from 1979 were primary metal industries, down 40.4 percent; and lumber and wood products, 36.0 percent. Close behind came nondurable goods with anticipated expenditures up 36.2 percent for 1981. Primary expansion occurred in tobacco manufactures, 171.0 percent; leather and leather products, 158.1 percent; and apparel and other textile products, 21.4 percent. The major downturn was food and kindred products, off 51.8 percent.

The wheels within the Virginia manufacturing engine though somewhat slowed, continued to turn during 1980. Virginia has over the years diversified its industrial mix and constantly sought out and encouraged a range of industrial partners which have helped buffer economic variences.

Christopher E. Loftus

ANNUAL SURVEY OF VIRGINIA MANUFACTURES
1980
(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

	All Employees		Production Workers				
Industry Group 1/	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	413.8	$6,059,143	318.5	$4,049,414	$16,315,128	$1,883,309	$1,738,335
Durable Goods	189.1	2,867,748	143.6	1,867,293	6,319,047	459,745	498,252
Lumber and Wood Products	22.2	247,197	19.0	179,434	520,932	49,929	29,002
Logging Camps and Logging Contractors-Sawmills and Planing Mills	10.0	101,230	8.5	77,001	243,240	25,620	16,087
Millwork, Plywood and Structural Members	5.5	69,623	4.7	48,298	123,320	15,105	5,045
Wood Containers	1.8	17,905	1.6	14,395	31,681	2,201	1,606
Wood Buildings and Mobile Homes	2.5	28,794	1.9	16,306	63,415	2,037	1,105
Miscellaneous Wood Products	2.4	29,645	2.1	23,434	59,276	4,966	5,159
Furniture and Fixtures	25.8	261,473	21.8	186,252	498,654	21,794	22,828
Household Furniture and Office Furniture	24.5	247,578	20.8	177,505	472,522	20,812	23,104
Stone, Clay, and Glass Products	13.0	179,269	10.2	122,557	433,024	39,356	39,952
Concrete, Gypsum, and Plaster Products	7.1	98,128	5.5	66,318	212,888	16,232	16,993
Glass and Glass Products	2.0	32,281	1.6	21,894	86,172	14,901	8,765
Primary Metal Industries	12.6	229,140	7.1	118,690	342,794	24,059	19,417
Fabricated Metal Products	20.3	330,266	13.6	198,785	791,391	33,846	34,263
Fabricated Structural Metal Products	13.1	202,579	7.7	103,197	459,738	14,969	18,217
Machinery, Except Electrical	15.4	245,054	10.8	148,388	582,398	60,426	49,939
Construction and Related Machinery	5.1	78,905	3.1	44,925	177,258	13,110	11,883
Special Industry Machinery	1.8	32,724	1.2	18,292	57,745	6,111	5,731
Office and Computing Machines	.3	5,521	.1	1,479	9,573	321	313
Refrigeration and Service Machinery	1.9	31,771	1.2	18,107	56,352	2,388	4,817
Miscellaneous Machinery, Except Electrical	2.9	44,790	2.4	34,582	71,865	4,100	3,765
Electric and Electronic Equipment	35.2	636,562	23.6	333,610	1,775,747	136,270	193,726
Electrical Industrial Apparatus	10.4	179,609	6.7	93,620	477,837	36,100	46,541
Communication Equipment	10.4	189,874	6.7	105,279	638,631	55,061	102,087
Electronic Components and Accessories	5.9	136,422	3.6	47,510	217,850	21,586	17,694
Transportation Equipment	38.2	654,658	32.8	528,480	1,214,932	82,800	99,316
Instruments and Related Products	3.7	52,701	2.5	28,418	100,770	8,366	5,566
Miscellaneous Manufacturing Industries	2.7	31,428	2.2	22,709	58,405	2,899	4,243
Nondurable Goods	224.7	3,191,395	174.9	2,182,121	9,996,081	1,423,564	1,240,083
Food and Kindred Products	41.0	509,390	30.7	319,324	1,935,065	293,642	92,284
Meat Products	14.0	140,578	12.2	105,421	577,779	21,224	15,512
Dairy Products	2.4	37,548	1.3	19,500	129,072	13,862	6,174
Preserved Fruits and Vegetables	3.9	42,851	3.3	32,927	102,329	8,719	5,077
Grain Mill Products	1.4	23,166	1.0	13,297	74,851	8,693	5,547
Bakery Products	4.8	80,121	2.5	41,358	335,610	4,103	7,385
Beverages	5.4	10,171	2.4	46,779	427,342	224,750	13,631
Miscellaneous Foods and Kindred Products	6.6	50,751	5.8	34,613	119,861	6,514	6,806
Tobacco Manufactures	17.7	373,570	12.9	250,329	1,453,682	239,564	535,354
Tobacco Stemming and Redrying	2.2	31,032	1.6	17,678	69,136	9,658	14,682
Textile Mill Products	44.6	494,650	39.7	414,847	1,056,183	75,191	50,627
Broad Woven Fabric Mills	19.5	239,526	17.2	197,804	550,390	43,282	22,574
Knitting Mills	13.8	139,218	12.8	116,841	245,952	13,912	19,043
Textile Finishing, Except Wool	5.1	39,914	4.4	47,322	95,354	11,194	3,761
Yarn and Thread Mills	2.5	23,594	2.2	19,583	33,663	2,450	3,335
Miscellaneous Textile Goods	1.2	15,199	1.0	11,911	48,593	2,400	1,833
Apparel and Other Textile Products	34.3	274,903	30.9	232,651	614,451	6,595	5,952
Men's and Boys' Clothing	12.8	102,434	11.6	91,932	175,581	2,256	2,452
Women's and Misses' Outerwear	10.9	87,845	9.8	74,954	280,560	873	232
Women's and Children's Undergarments	2.4	16,146	2.1	13,332	21,440	78	67
Children's Outerwear	4.7	37,897	4.3	29,631	73,993	2,616	2,831
Miscellaneous Fabricated Textile Products	1.7	16,690	1.4	10,924	31,463	368	330
Paper and Allied Products	15.0	291,818	11.5	205,961	958,530	314,070	204,060
Paper and Paperboard, Except Bldg. Paper	8.0	182,372	5.6	122,938	743,717	293,862	185,142
Miscellaneous Converted Paper Products	2.8	41,085	2.4	29,763	88,888	6,648	4,624
Paperboard Containers and Boxes	3.8	62,621	3.2	48,152	112,960	13,075	13,745
Printing and Publishing	22.4	336,071	13.3	185,371	751,980	85,767	53,896
Newspapers and Periodicals	8.4	107,247	3.0	33,514	242,403	15,771	10,843
Commercial Printing	8.8	156,520	6.7	106,524	305,876	69,284	31,890
Chemicals and Allied Products	34.2	684,197	23.3	400,810	2,378,939	276,620	215,126
Industrial Inorganic Chemicals	.9	20,140	.4	9,282	42,214	7,765	7,594
Plastics Materials and Synthetics	21.4	446,090	15.6	287,676	1,109,016	227,175	144,215
Drugs	3.0	70,623	1.5	25,315	629,641	27,427	43,211
Agricultural Chemicals	1.4	20,510	.9	10,004	85,279	1,804	954
Petroleum and Coal Products-Rubber and Miscellaneous Plastics Products	11.9	210,182	9.3	150,268	777,831	130,921	80,433
Miscellaneous Plastics Products	5.8	94,299	4.5	66,796	284,716	88,960	34,764
Tires and Fabricated Rubber Products	5.7	106,844	4.6	79,004	395,455	34,976	40,252
Leather and Leather Products	3.6	26,614	3.3	22,560	69,420	1,194	2,351

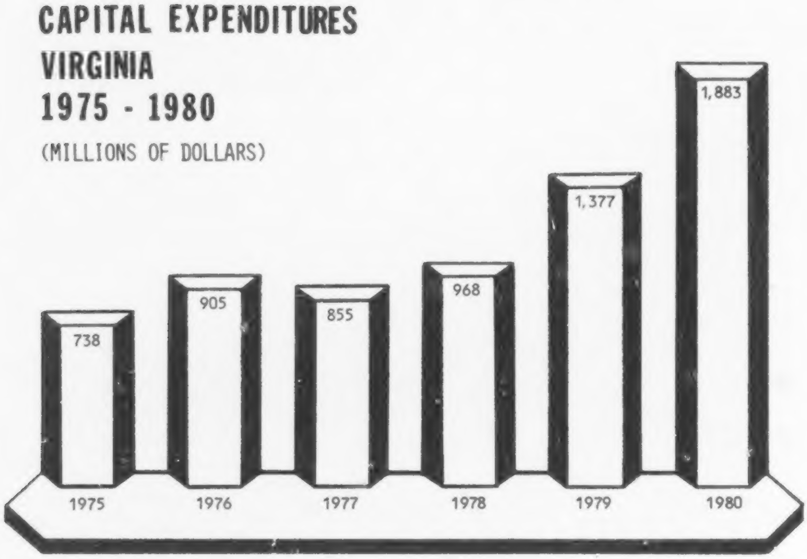
1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

CAPITAL EXPENDITURES
VIRGINIA
1975 - 1980

(MILLIONS OF DOLLARS)



ANNUAL SURVEY OF MANUFACTURES

BRISTOL STANDARD METROPOLITAN STATISTICAL AREA

1980

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers				
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	9.2	$ 126,219	6.8	$ 84,319	$ 380,827	$ 14,802	$ 12,054
Durable Goods	4.7	76,841	3.6	54,458	246,951	7,583	7,160
Lumber and Wood Products--Furniture and Fixtures	.3	2,263	.2	1,882	3,771	351	35
Primary Metal Industries--Fabricated Metal Products	2.2	42,752	1.7	31,325	115,379	4,204	4,600
Other Durable Goods 4/	2.2	31,826	1.8	21,251	127,801	3,028	2,525
Nondurable Goods	4.5	49,378	3.2	29,861	133,876	7,219	4,894
Food and Kindred Products	1.7	24,953	.9	11,081	69,838	3,274	1,870
Apparel and Other Textile Products	1.7	12,577	1.6	10,864	22,195	27	98
Paper & Allied Products--Printing & Publishing	.5	4,101	.3	2,678	19,218	2,177	730
Other Nondurable Goods 5/	.6	7,747	.4	5,238	22,625	1,741	2,196

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes stone, clay, and glass products; machinery, except electrical; electric and electronic equipment; and transportation equipment.

5/ Includes tobacco manufactures; textile mill products; chemicals and allied products; and rubber and miscellaneous plastics products.

The Bristol Standard Metropolitan Statistical Area is comprised of the City of Bristol and the counties of Scott and Washington.

ANNUAL SURVEY OF MANUFACTURES

LYNCHBURG STANDARD METROPOLITAN STATISTICAL AREA

1980

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers				
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	28.7	$ 397,369	19.9	$ 247,429	$ 936,608	$ 47,795	$ 69,343
Durable Goods	18.7	260,704	12.0	148,244	616,341	25,591	50,418
Lumber and Wood Products-Furniture and Fixtures	4.1	42,073	3.4	29,370	84,550	8,875	6,238
Other Durable Goods 4/	14.6	218,631	8.6	118,874	531,791	16,716	44,180
Nondurable Goods	10.0	136,665	8.0	99,185	320,267	22,204	18,925
Food and Kindred Products	1.3	18,168	.7	8,999	55,196	4,728	8,901
Textile Mill Products	1.9	24,260	1.6	19,488	63,225	4,050	-
Apparel and Other Textile Products	2.2	17,508	2.1	15,232	15,012	39	9
Paper and Allied Products	1.0	26,144	.9	21,893	65,814	4,427	4,491
Other Nondurable Goods 5/	3.6	50,585	2.7	33,573	121,020	8,960	5,524

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes stone, clay, and glass products; primary metal industries; fabricated metal products; machinery, except electrical; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes tobacco manufactures; printing and publishing; chemicals and allied products; petroleum and coal products; rubber and miscellaneous plastics products; and leather and leather products.

The Lynchburg Standard Metropolitan Statistical Area is comprised of the city of Lynchburg and the counties of Amherst, Campbell, and Appomattox.

ANNUAL SURVEY OF MANUFACTURES

NORFOLK-VIRGINIA BEACH-PORTSMOUTH STANDARD METROPOLITAN STATISTICAL AREA

1980

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers				
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	29.2	$ 447,606	22.5	$ 304,016	$1,307,807	$ 85,574	$ 69,286
Durable Goods	17.6	295,624	14.7	216,063	871,197	43,914	37,054
Lumber and Wood Products	1.6	22,151	1.5	17,463	73,110	5,367	2,462
Fabricated Metal Products	1.0	14,698	.8	8,848	27,342	1,367	566
Machinery, except Electrical	1.2	16,873	1.0	11,216	145,108	9,828	11,526
Transportation Equipment	7.4	148,150	6.6	117,002	411,716	8,902	11,510
Other Durable Goods 4/	6.4	93,752	4.8	61,534	213,921	18,450	10,990
Nondurable Goods	11.6	151,982	7.7	87,953	436,610	41,660	32,232
Food and Kindred Products	5.7	68,370	3.9	40,408	207,558	12,965	19,472
Apparel and Other Textile Products	.9	8,924	.9	7,459	22,659	283	272
Printing and Publishing	2.4	29,510	1.2	12,847	62,522	5,115	2,491
Chemicals and Allied Products	1.4	22,091	.8	11,035	60,138	1,250	1,024
Other Nondurable Goods 5/	1.2	23,087	.9	16,204	83,733	22,047	8,973

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes furniture and fixtures; stone, clay, and glass products; primary metal industries; electric and electronic equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes tobacco manufactures; textile mill product; paper and allied products; petroleum and coal products; rubber and miscellaneous plastics products; and leather and leather products.

The Norfolk-Virginia Beach-Portsmouth Standard Metropolitan Statistical Area is comprised of the cities of Norfolk, Portsmouth, Virginia Beach, Chesapeake, and Suffolk.

NOTE: Detail may not add to totals due to rounding.

ANNUAL SURVEY OF MANUFACTURES

NORTHERN VIRGINIA METROPOLITAN AREA

1980

EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers				
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	18.9	$ 349,460	10.4	$ 143,534	$ 707,751	$ 54,851	$ 38,261
Durable Goods	11.9	236,024	6.4	87,223	442,243	28,699	22,133
Stone, Clay, and Glass Products	1.1	16,943	1.0	12,678	59,380	1,743	1,693
Fabricated Metal Products	1.2	20,309	1.0	14,416	39,103	1,246	983
Machinery, except Electrical	.6	11,316	.5	6,790	19,872	787	597
Electric and Electronic Equipment	6.8	152,687	2.9	38,711	260,211	21,464	15,835
Other Durable Goods 4/	2.2	34,769	1.0	14,628	63,677	3,459	3,025
Nondurable Goods	7.0	113,436	4.0	56,311	265,508	26,152	16,128
Food and Kindred Products	1.1	22,593	.6	10,200	65,463	10,945	2,429
Printing and Publishing	4.6	70,583	2.9	40,532	145,257	11,531	9,800
Other Nondurable Goods 5/	1.3	20,260	.5	5,579	54,788	3,676	3,899

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes lumber and wood products; furniture and fixtures; primary metal industries; transportation equipment; instruments and related product; and miscellaneous manufacturing industries.

5/ Includes apparel and other textile products; paper and allied products; chemicals and allied products; petroleum and coal products; and rubber and miscellaneous plastics products.

The Northern Virginia Metropolitan Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park and the counties of Arlington, Fairfax, Loudoun, and Prince William.

ANNUAL SURVEY OF MANUFACTURES

PETERSBURG-COLONIAL HEIGHTS-HOPEWELL STANDARD METROPOLITAN STATISTICAL AREA

1980

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers				
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	11.0	$ 198,051	8.8	$ 142,506	$ 573,141	$ 242,773	$ 151,378
Durable Goods	2.6	29,263	2.2	19,189	78,377	17,419	10,229
Lumber and Wood Products--Furniture and Fixtures	.4	4,281	.4	3,420	9,870	1,854	605
Fabricated Metal Products	.2	2,149	.1	1,536	3,962	235	1,520
Other Durable Goods 4/	2.0	22,833	1.7	14,233	64,545	15,330	8,104
Nondurable Goods	8.4	168,788	6.6	123,317	494,764	225,354	141,149
Food and Kindred Products	.3	5,367	.2	1,885	12,108	2,585	2,414
Chemicals and Allied Products	3.6	76,562	2.6	52,689	194,848	54,873	42,382
Other Nondurable Goods 5/	4.5	86,859	3.8	68,743	287,808	167,896	96,353

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes stone, clay, and glass products; machinery, except electrical; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes tobacco manufactures; textile mill products; apparel and other textile products; paper and allied products; printing and publishing; rubber and miscellaneous plastics products; and leather and leather products.

The Petersburg-Colonial Heights-Hopewell Standard Metropolitan Statistical Area is comprised of the cities of Petersburg, Colonial Heights, and Hopewell and the counties of Dinwiddie and Prince George.

NOTE: Detail may not add to totals due to rounding.

ANNUAL SURVEY OF MANUFACTURES

RICHMOND STANDARD METROPOLITAN STATISTICAL AREA

1980

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers				
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	56.3	$1,075,599	37.7	$ 627,639	$3,146,067	$ 546,594	$ 625,873
Durable Goods	17.8	323,114	11.1	165,365	602,961	42,589	51,775
Lumber and Wood Products	1.7	24,337	1.5	16,132	38,402	6,428	1,670
Furniture and Fixtures	1.8	18,347	1.4	10,805	34,323	582	616
Stone, Clay, and Glass Products	1.3	18,538	.8	9,453	28,589	3,222	1,238
Fabricated Metal Products	2.4	38,181	1.9	28,255	82,109	3,692	1,348
Machinery, except Electrical	2.1	42,001	1.2	20,750	73,409	4,491	4,765
Other Durable Goods 4/	8.5	181,710	4.3	79,970	346,129	24,174	42,138
Nondurable Goods	38.5	752,485	26.6	462,274	2,543,106	504,005	574,098
Food and Kindred Products	4.2	63,949	2.9	40,974	364,196	5,814	13,163
Tobacco Manufactures	13.1	289,356	8.9	182,311	1,153,966	191,668	431,006
Apparel and Other Textile Products	2.3	19,111	1.9	13,355	33,632	667	210
Paper and Allied Products	4.2	82,455	3.3	58,895	148,695	54,788	15,240
Printing and Publishing	5.2	93,711	3.5	58,014	176,389	34,566	20,330
Chemicals and Allied Products	8.1	178,713	4.9	89,886	566,171	126,361	75,727
Other Nondurable Goods 5/	1.4	25,190	1.1	18,839	100,057	90,141	18,422

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes primary metal industries; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes textile mill products; petroleum and coal products; rubber and miscellaneous plastics products; and leather and leather products.

The Richmond Standard Metropolitan Statistical Area is comprised of the city of Richmond and the counties of Henrico, Chesterfield, Hanover, Charles City, Goochland, and Powhatan.

ANNUAL SURVEY OF MANUFACTURES

ROANOKE STANDARD METROPOLITAN STATISTICAL AREA

1980

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers				
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/	Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
ALL MANUFACTURING	21.3	$ 304,340	14.9	$ 180,695	$ 743,483	$ 43,377	$ 29,524
Durable Goods	12.1	179,166	8.3	104,258	366,327	21,411	10,478
Primary Metal Industries--Fabricated Metal Products	2.6	41,968	1.9	24,935	66,864	3,685	2,708
Machinery, except Electrical	1.7	25,995	1.2	16,526	42,604	4,788	2,968
Other Durable Goods 4/	7.8	111,203	5.2	62,797	256,859	12,938	4,802
Nondurable Goods	9.2	125,174	6.6	76,437	377,156	21,966	19,046
Food and Kindred Products	1.9	25,771	.8	7,461	76,152	7,883	7,862
Apparel and Other Textile Products	1.8	14,553	1.6	12,336	18,703	283	36
Printing and Publishing	.9	13,487	.5	5,858	24,771	1,213	4,791
Other Nondurable Goods 5/	4.6	71,363	3.7	50,782	257,530	12,587	6,357

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes lumber and wood products; furniture and fixtures; stone, clay, and glass products; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industies.

5/ Includes textile mill products; paper and allied products; chemicals and allied products; and rubber and miscellaneous plastics products.

The Roanoke Standard Metropolitan Statistical Area is comprised of the cities of Roanoke and Salem and the counties of Roanoke, Botetourt, and Craig.

NOTE: Detail may not add to totals due to rounding.

EXPLANATION OF TERMS

The survey of manufactures, which is conducted annually for Virginia and its metropolitan areas, is designed to present such important economic indicators as employment, salaries, wages, value added by manufactures, and capital expenditures. Because much of these data are unavailable until well after the end of the calendar year and must then be collected and edited by the Department before tabulation and publication, this study cannot be used as an instantaneous year-end review. The additional time, however, permits the construction of a more accurate representation of the economy during the survey year than would otherwise be possible. In order to provide statistics by industry group, in addition to the State and SMSA totals, each manufacturing firm has been assigned an industry code based on the Standard Industrial Classification Manual. Publication of statistics for industry groups in which the employment is dominated by a single firm might indirectly reveal confidential data for that firm; these industry groups have been combined with other industry groups before publication.

Totals for industry groups with less than 100 percent response are estimated on the basis of an employment factor. Since responding companies accounted for 62.7 percent of Virginia's estimated total manufacturing employment in 1980, published figures should closely approximate data that would result from a complete canvass. Statistical data have been obtained from approximately 1,600 manufacturing plants including most of the large plants and a representative sample of the many smaller plants.

"Value Added by Manufactures" approximates the value created in the manufacturing process and is obtained by subtracting from the net selling value of products manufactured the cost of contract work and cost of materials, which includes components, supplies, containers for products, fuel and electrical energy consumed during the year.

The term "All Employees" includes all classes of employees (administrative, supervisory, clerical, professional, technical, sales, delivery, installation, construction and service personnel, as well as operating and related workers) employed full or part-time by the establishment. "Wages and Salaries" are defined as gross earnings of employees, including commissions, dismissal pay, nonproduction bonuses, vacation and sick leave pay, and compensation of any kind, prior to such deductions as employees' social security contributions, withholding taxes, union dues, group insurance and savings bonds.

"Production Workers" is restricted to include working foremen and all nonsupervisory workers engaged in production work or other services closely allied to production operations.

"Capital Expenditures" includes expenditures for construction, new machinery and new equipment (includes major alterations and capitalized repairs but excludes expenditures for land). Also included are expenditures chargeable to fixed assets accounts for which depreciation accounts are maintained and excludes used plant and equipment acquired from others. This information is available for the past calendar year. Anticipated capital expenditures for the current year is also published.

DIVISION OF MINES AND QUARRIES

The Division of Mines and Quarries functions within the Department of Labor and Industry and is mandated through Title 45.1, the Virginia Mining Laws, to supervise the execution and enforcement of all laws enacted for the safety of persons employed within or at mines or quarries, and oil and gas production activities within the limits of the Commonwealth, and the protection of mine property and other property used in connection therewith. In the conduct of this mandate, the Division of Mines and Quarries has developed a coal mine health and safety enforcement program, metal and nonmetallic mine health and safety enforcement program, oil and gas inspection program, and a miner education and training program. These programs focus on the goals and objectives of the Division, which include the enforcement of reasonable health and safety standards, the provision of education and training for mine personnel, and the protection of mine property and property affected by mining.

The Division maintains a main office facility in Wise County at 219 Wood Avenue, Big Stone Gap, Virginia. This facility is a State-owned structure and is the seat of the Division administrative functioning with facilities also provided for training and examining activities. In addition, a field office and training center is rented in Buchanan County near Deel, Virginia. These facilities are located central to the concentrated coal mining activities of the seven county Southwest Virginia Coal field. The Division currently employs a staff of forty-one field and six office personnel, headed by the Chief Mine Inspector who reports to the Commissioner of Labor and Industry. All facilities and programs within the Division stress individual miner safety through coordination of efforts for education, engineering, and enforcement of mining safety principles and standards. All Division field inspection personnel are qualified, experienced mining personnel who have demonstrated and possess required certification of mining skills and knowledge.

Six office support personnel work within the Division and maintain required records of all mining and oil and gas drilling conducted throughout the State. Annual licenses, mining and drilling maps, reporting of production and employment figures, accident reports and other information is required to be submitted to the Division and must be compiled. During 1981, a total of 1,633 mining licenses were issued. Mining maps were submitted and catalogued for each active underground operation during December and June. A review of mining and quarrying safety within the Commonwealth was compiled and published quarterly during 1981, and mailed to all mining operations and other interested persons and activities. The Division also provided statistical data relevant to Virginia's mining industry, to other State agencies, Federal agencies, and various private concerns during 1981.

MINING HEALTH AND SAFETY ENFORCEMENT PROGRAM

The rate of coal mine development activity during 1981 increased slightly over 1980. The production of coal also increased during the same time period, even with the work stoppage. The demand for steam coal resulted in the increased mining activity and production. The present trend presents a positive future for mining in Virginia. It would appear that the present activities in regard to new mine development would mean more employment in the mining industry and more production for the Commonwealth in the next few years. The metal and nonmetallic mining sector experienced adverse conditions in 1981. The market conditions for certain metals mined in Virginia such as zinc and lead were adverse, and this resulted in the closure of the lead and zinc mine which existed since the 1700's. The market for aggregate brick, sand, and other metal and nonmetallic minerals was not good due to the decrease in building and highway construction.

Virginia Mining Laws require that each mine have a complete inspection at least every ninety days. During an inspection the inspector shall inspect the surface plant, every working place in the mine, all active haulageways and travelways, entrances to abandoned workings, and accessible old workings, at least one entry of each intake and return airway in its entirety, escapeways and other places where men work or travel or where dangerous conditions may exist, electrical installations and equipment, haulage facilities, first aid equipment, ventilation facilities, communication installations, roof and rib conditions, and roof support practices, blasting practices, haulage practices and equipment pertaining to the health and safety of the employees. The inspector must check the quantity and direction of air, and make checks for gas and oxygen deficiency in each place. He must then complete a certificate of inspection showing the condition of the mine, any violations of the mining laws, and actions taken to correct the violations. To accomplish the above, inspection activities requires approximately four hours at a small surface mining operation, and as long as seven full weeks at an underground shaft mine liberating millions of cubic feet of methane in any normal twenty-four hour period. A summary of mine health and safety inspection activities for 1981 is as follows:

Underground Coal Mine Tipple	1,050
Underground Coal Mine Truck	3,186
Surface Coal Mine Strip	703
Surface Coal Mine Auger	97
Refuse Pile	50
Open Pit Inspections	1,024
Metal and Nonmetallic (Underground)	29
Investigations	178
TOTAL	6,317

MINER EDUCATION AND TRAINING PROGRAM

The Division's training program during 1981 consisted of two full-time field electrical instructors and three full-time field mine safety instructors. The program was headed by an instructor supervisor. The instructors teach courses in mine electricity, maintenance and repair safety, mine foremanship, first aid, mine emergency and mine rescue training, and other areas of mine health and safety instruction. In addition, each field inspector is required to devote at least twenty-five per cent of his underground inspection time to direct contacts with mine personnel relevant to mine safety and safe working practices. All training activities are controlled and coordinated by the instructor supervisor.

Annually, a safety day program is conducted in Virginia. This program is an effort to encourage the equipping and training of mine rescue and first aid teams to be prepared to react to mine fires and explosions. The 1981 contest was held during August at Blacksburg, Virginia, at Virginia Polytechnic Institute and State University. Sixty teams from four states participated in the contest. In addition, during 1981, Division personnel participated in and supported the Virginia Safety Association, Mine Inspectors' Institute of America, and National Mine Rescue Association. Rescue equipment is maintained for training functions. The activities of the miner education and training program are funded (80%) through Federal Grant G 2690218.

In addition to Division activities in miner training, three regional community colleges conduct training programs contractually through the Division's grant program. The programs developed by these schools have provided much needed assistance in meeting the training needs of Virginia's mining industry, especially the smaller, independent operator.

A summary of miner education and training activities conducted during 1981 by Division personnel is as follows:

Mine Foremanship	756
Mine Foremanship Retraining	15
First Aid	442
Surface Mine Foremanship	110
Underground Shot Firer's	207
Electrical Training - Underground and Surface	905
Electrical Retraining - Underground and Surface	75
Care and Use of Flame Safety Light and Methane Detector	295
Mine Rescue Training	13
CPR	17
Surface Blasters	169
New Miner Training For Open Pit	27
TOTAL TRAINED	3,031

The Board of Examiners is a function of the Division. The Board consists of six appointed members and the Chief. One member is an underground coal miner, one member is a surface coal miner, one member is a miner working in the mining of minerals other than coal, one member is an operator engaged in the operation of surface coal mining, one member is an operator engaged in an underground coal mine, one member is an operator who is engaged in the operation of a noncoal mine in the State. Also, the Chief Mine Inspector serves as Chairman of the Board and one secretary in the Division serves as secretary to the Board. The Board establishes miner training and certification standards. During 1981 the Board held four regular meetings. The Board revoked two certificates in 1981. The Board administers examinations for various classifications of miner certification at the Big Stone Gap and Deel Offices of the Division. The Board examined or re-examined a total of 2,066 persons during 1981. The following certificates were issued by the Board during 1981:

Tipple Mechanic	1
First Class Mine Foreman	334
Surface Coal Mine Foreman	114
Surface, Metal and Nonmetallic Foreman	74
Underground Mine Foreman, Metal and Nonmetallic	2
Electrical Underground and Surface	338
Fire Boss	14
Hoisting Engineer	4
Surface Certified Blasters	135
Mine Inspectors	7
Preparation Plant Foreman	73
Dock Foreman	5
Automatic Elevator Operator	46
Top Person	1
Underground Shot Firer	374
First Class Shaft Slope Foreman	18
TOTAL NUMBER OF CERTIFICATES ISSUED	1,540

In addition, the Board issued the following Approved Competent Person cards and permits:

Underground Mine Foreman	45
Preparation Plant Foreman	4
Surface Coal Mine Foreman	2
Surface Foreman, Metal and Nonmetallic	11
Mine Foreman Underground, Metal and Nonmetallic	1
Top Person	30
Shaft Slope Foreman	1
Dock Foreman	1
TOTAL	95

MOUNTAIN EMPIRE COMMUNITY COLLEGE

Mountain Empire Community College would like to take this opportunity to respectfully submit the annual report of completed training as a subcontractor to the Virginia Division of Mines and Quarries for the period January 1, 1981 to December 31, 1981.

The Mining Program is continuing to be fully operational as it has been since July, 1977. Participation and support for the program from mine and quarry operators, as well as the miners themselves, has been excellent.

Mountain Empire Community College is well equipped to handle the steadily increasing demand for miner training. We now have one full-time retraining instructor, with three additional mining instructors, who are fully certified in all phases of mine safety.

Our retraining program is fully publicized quarterly to all active mines reminding them of the services we have to offer, with a follow-up visit to the mine site by our retraining instructor. Services include training evaluations and preparation of training plans as well as annual refresher training. The retraining program is available to the miners upon request, at any location, day or night, week-day or week-ends at no cost to themselves.

Mountain Empire Community College continues to work very closely with the Virginia Division of Mine and Quarries, Southwest Virginia Community College, and the Mining Enforcement and Safety Administration.

Following is a breakdown of the classes and the number of miners attending in each category from January 1, 1981 to December 31, 1981:

First Aid Methods	2,112
Principles of Mine Rescue	1,222
Use of Self-Rescuer	2,112
Coal Mine Health and Safety Act, 1977 Underground	1,222
Coal Mine Health and Safety Act, 1977 Surface	797
Coal Mine Ventilation	407
Roof and Rib Control	1,222
Electrical Retraining	24
Methane Measurement and Oxygen Deficiency Testing	1,222
Emergency Medical Technicians	247
Statutory Rights of Miners	2,112
New Miner Training	406
Health and Safety Instructor Training	0

Mountain Empire Community College is grateful for the opportunity to serve the mining industry in its educational needs. We would like to express our appreciation to the Virginia Division of Mines and Quarries for giving us the opportunity to do so, and for their leadership and support.

SOUTHWEST VIRGINIA COMMUNITY COLLEGE MINER TRAINING PROJECT 1981 ANNUAL REPORT

Southwest Virginia Community College submits the annual report of completed training as a subcontractor to the Virginia Division of Mines and Quarries for the period of January 1, 1981 through December 31, 1981.

Funding obtained under this subcontract has enabled Southwest Virginia Community College to extend meaningful health and safety training to coal operators, metal, and nonmetal operations. These services have been made available to the miners, upon request, at any location, day or night, weekday or weekends at no cost to the operator. The project currently is staffed with a coordinator, an emergency medical technician/first aid instructor, and a secretary. In addition to these full-time personnel, various "qualified" part-time instructors are used to meet the increasing demand for weekend and evening classes.

This year the project has experienced significant growth in 40-hour New Miner Training and Annual Refresher Training. The coal companies in our service region have steadily grown dependent on the services that Southwest Virginia Community College has and will continue to provide.

Southwest Virginia Community College welcomes the opportunity to serve an industry so vital to our area. We appreciate the support of the Virginia Division of Mines and Quarries as we jointly meet the industry's training needs.

Courses conducted by Miner Training personnel are as follows:

MANDATORY TRAINING

COURSE	PERSONS TRAINED	MINIMUM CONTACT HOURS OF TRAINING	MINIMUM MAN HOURS
New Miner Train. - Underground	885	40	35,400
New Miner Training - Surface	114	24	2,736
Annual Retraining	1,661	8	13,288
Electrical Recertification	89	10	890
TOTAL	2,749		52,314
CERTIFICATION CLASSES			
Underground Mine Foreman	250	60	15,000
Shot Firer	90	20	1,800
Electrical Certification	151	88	13,288
Maintenance Foreman	16	30	480
Chief Electrician	22	30	660
First Aid & Accident Prevention	8	10	80
Blueprint & Motor Control	8	40	320
Surface Blasters Certificates	28	30	840
TOTAL	573		32,468
EMERGENCY MEDICAL TECHNICIAN			
Emergency Medical Tech. - Basic	151	81	12,231
Emerg. Med. Tech. - Refresher	275	32	8,800
CPR - Basic	11	12	132
CPR - Refresher	29	10	290
TOTAL	466		21,453
GRAND TOTAL	3,788		106,235

VIRGINIA WESTERN COMMUNITY COLLEGE
OFFICE OF CONTINUING EDUCATION
MINE SAFETY AND HEALTH CLASSES

1981

Class (Credit)	Instructor	Date	No. of Enrollees	Totals
Blue Ridge Stone Refresher	D. Pope	1/23	17	
Blue Ridge Stone Refresher	R. Doss	1/23	18	
James River Refresher	D. Pope	2/2	14	
James River Refresher	R. Doss	2/4	13	
New Jersey Zinc Refresher	D. Pope	3/3	14	
New Jersey Zinc Refresher	D. Pope	3/4	14	
New Jersey Zinc Refresher	D. Pope	3/5	16	
New Jersey Zinc Refresher	D. Pope	3/6	15	
James River Limestone - New	D. Pope	2/5 & 2/6	9	
James River Limestone - New	R. Doss	2/5 & 2/6	8	138
Lone Star First Aid	C. Doss	3/24	13	
Lone Star First Aid	C. Doss	3/25	9	
ACCO Stone First Aid	C. Doss	3/13	19	
New Jersey Zinc Refresher	D. Pope	3/10	7	
New Jersey Zinc Refresher	D. Pope	3/11	14	
New Jersey Zinc Refresher	D. Pope	3/12	12	
New Jersey Zinc Refresher	D. Pope	3/17	14	
New Jersey Zinc Refresher	D. Pope	3/18	14	
New Jersey Zinc Refresher	D. Pope	3/19	18	
New Jersey Zinc Refresher	D. Pope	3/20	11	
New Jersey Zinc Refresher	D. Pope	3/24	11	
New Jersey Zinc Refresher	D. Pope	3/25	12	
New Jersey Zinc Refresher	D. Pope	3/26	7	
New Jersey Zinc Refresher	D. Pope	5/11	10	171
Gold Bond Refresher	D. Pope	9/1	13	
Gold Bond Refresher	D. Pope	9/2	17	
Gold Bond Refresher	D. Pope	9/3	17	
Gold Bond Refresher	D. Pope	9/4	15	
Gold Bond Refresher	D. Pope	9/8	18	
Gold Bond Refresher	R. Doss	9/10	27	
Gold Bond Refresher	R. Doss	9/11	26	
Virginia Lime Company Refresher	R. Doss	9/21	11	
Virginia Lime Company Refresher	R. Doss	9/22	13	
Virginia Lime Company Refresher	R. Doss	9/23	16	
Virginia Lime Company Refresher	R. Doss	9/24	12	
Virginia Lime Company Refresher	R. Doss	9/25	16	
James River Limestone Refresher	R. Doss	11/3	19	
James River Limestone Refresher	R. Doss	11/4	19	
James River Limestone Refresher	R. Doss	11/5	21	
James River Limestone - New	R. Doss	11/5 & 11/9	16	276
		TOTAL		585

Class (Noncredit)	Instructor	Date	No. of Enrollees	Totals
New Jersey Zinc Refresher	R. Doss	3/3 - 3/6	24	
New Jersey Zinc Refresher	A. Wiles	3/10 - 3/26	37	
Blue Ridge Stone Refresher	R. Doss	3/16	5	
New Jersey Zinc Refresher	R. Doss	3/17 - 3/20	26	
Trego Stone - New	D. Pope	3/30 - 3/31	6	
Lone Star Cement Refresher	D. Pope	4/1	4	102
Virginia Lime Company Refresher	D. Pope	9/29	5	5
		TOTAL		107
CPR for Mine Instructors	L. Parker	6/15	4	4
		TOTAL		4

VIRGINIA OIL AND GAS PRODUCTION, EXPLORATION AND DEVELOPMENT

1981

SUMMARY

NATURAL GAS PRODUCTION

Natural gas production in Virginia for 1981 totaled 8,902,447 Mcf from 288 wells of eleven companies. This represented an increase of 1,090,045 Mcf or fourteen percent over the previous year's total production.

The 1981 natural gas production for each county is shown in the following table.

TABLE 1

County	Producing Wells	Volume Produced (Mcf)
Buchanan	133	3,636,885
Dickenson	118	3,842,898
Rockingham	5	122,828
Russell	2	32,839
Tazewell	20	526,610
Wise	10	740,387
TOTALS	288	8,902,447

The 1981 natural gas production for each company is shown in the following table.

TABLE 2

Company	Producing Wells	Volume Produced (Mcf)
Ashland Exploration, Inc.	40	492,761
Cabot Corporation	1	22,261
Clinchfield Coal Company	2	32,839
Columbia Gas Transmission Corporation	123	4,179,579
Consol-Ray Resources	14	372,302
W. E. Elliott, Trustee	2	50,103
Merrill Natural Resources, Inc.	3	106,847
Penn-Virginia Resources Corporation	2	2,176
Philadelphia Oil Company	93	3,585,385
P & S Corporation	6	42,213
New Frontier Exploration, Inc.	2	15,981
TOTALS	288	8,902,447

Columbia Gas Transmission Corporation had the largest production during 1981 with 123 wells producing a total of 4,179,579 Mcf, which was delivered to its own lines.

Philadelphia Oil Company had the second largest production during 1981 with 93 wells producing into the line of Kentucky-West Virginia Gas Company (Table 9) delivering 3,585,385 Mcf to its customers from Virginia wells.

Columbia additionally purchased gas from 14 wells of Consol-Ray, 2 wells of W. E. Elliott, 2 wells from New Frontier Exploration, and 3 wells from Merrill Natural Resources, bringing to a grand total of 4,724,812 Mcf delivered via their lines from wells within the Commonwealth (Table 9).

Consolidated Gas Supply Corporation purchased gas produced from 40 wells of Ashland Exploration, Inc., 6 wells of P & S Oil and Gas Corporation, and 1 well of Cabot Corporation for a total of 557,235 Mcf delivered to its pipeline from 47 wells during the year (Table 9).

Clinchfield Coal Company produced 32,839 Mcf from 2 wells in Russell County and Penn-Virginia Resources Corporation produced 2,176 Mcf from 2 wells in Wise County all for local use.

CRUDE OIL PRODUCTION

Crude oil production continued to increase in 1981 with a total of 13,244 barrels produced from 11 wells (Table 11). This represented an increase of 3,731 barrels or 39 per cent over the previous year's production.

Crude oil production in the Rose Hill Field amounted to 1,338 barrels from 4 wells of Merrill Natural Resources, Inc., 3,231 barrels from 1 well operated by Pride Oil Company, 254 barrels from 1 well operated by Witt Drilling Company and 354 barrels from 1 well operated by Longview Oil Company. This brings the grand total of oil produced from the Rose Hill field to 5,371.

Crude oil production in the Ben Hur Field amounted to 7,873 barrels. Virginia Oil and Gas Exploration, Inc. produced 6,262 barrels from 2 wells. One thousand four hundred thirty-six barrels were produced from 1 well operated by Mountain Empire Gas and Oil Corporation. One hundred seventy-five barrels were produced from 1 well operated by Merrill Natural Resources, Inc.

The average price paid by the refineries for Virginia crude oil was $35.00.

EXPLORATION AND DEVELOPMENT

SUMMARY

Drilling activity in Virginia increased from the previous year's total by 5 with a total of 30 new wells drilled and completed. The new well total of 30 represents an increase of 20 per cent over the previous year's total of 25.

The total footage drilled in Virginia amounted to 144,660. This total represents an increase of 45,259 feet or 45 per cent over the previous year's total. The average footage drilled for the 28 development wells was 4,584 feet and 8,154 feet for the 2 exploratory wells.

Of the 30 new wells drilled in 1981, 24 were completed as producers and 6 were dry holes. Of the 6 dry holes, one was an oil well and 5 were gas wells. The above figures represent a success ratio of 80 per cent. Exploratory drilling was not successful during 1981 with 2 of 2 being dry holes, while development drilling had a success ratio of 86 per cent with 24 of 28 wells completed as producers.

The Counties of Buchanan, Dickenson, Frederick, Lee, Rockingham and Scott experienced some drilling activity in 1981. The following chart shows the breakdown of the drilling activity by county.

TABLE 3

County	Well Classification			
	Development	Exploratory	OWDD	TOTAL
Buchanan	14	0	0	14
Dickenson	9	0	0	9
Frederick	0	1	0	1
Lee	4	0	0	4
Rockingham	0	1	0	1
Scott	1	0	0	1
TOTALS	28	2	0	30

NATURAL GAS EXPLORATION AND DEVELOPMENT

In Buchanan County, Columbia Gas Transmission drilled 8 new wells in 1981 for a total footage of 42,904 feet. Texas International Petroleum Corporation drilled five new wells for a total footage of 22,328 feet. Cities Service's Company drilled one well to a total depth of 5,202 feet. Columbia completed all eight development wells as producers while Texas International completed only two of five development wells as producers. Cities Services one well was completed as a producer.

In Dickenson County, Philadelphia Oil Company drilled nine new development wells in 1981 for a total footage of 44,315. All of the new development wells were completed as producers.

In Frederick County, Amoco Production Company spudded on April 3, 1981, the first true exploratory well since the Gulf-Russell well in 1977. The Amoco-Holliday No. 1 attained a depth of 9,688 feet with T. D. reached in the Tuscarora Formation. The well, which was a new Field Wildcat, however, proved dry and was plugged and abandoned.

In Rockingham County, Amoco Production Company continued its exploratory ventures within the Commonwealth by the spudding of Dry River Unit No. 2 within the Federal Forest. This well, which reached a total depth of 6,620 feet, also proved dry. This new Field Wildcat was plugged and abandoned on October 1, 1981.

In Scott County, Highlander Resources drilled and completed the development well Sourbur No. 1 as a producer with a total depth of 5,153.

The gas wells drilled in 1981 were completed with production from Mississippian Ravencliffe, Greenbrier Limestone (Big Lime), Injun, Berea Sands and Devonian Shales.

CRUDE OIL EXPLORATION AND DEVELOPMENT

During 1981 both the Ben Hur Field and the Rose Hill Field saw limited developmental drilling. In the Ben Hur Field two development wells were completed as producers by Virginia Oil and Gas Exploration, Inc. In the Rose Hill Field two development wells were completed, one as a producer and the other as a dry hole by Merrill Natural Resources, Inc.

The oil wells that were drilled in 1981 were completed in the Ordovician Trenton Limestone.

PIPELINE CONSTRUCTION AND OTHER RELATED ACTIVITIES

Construction continued on natural gas pipelines during 1981 in three counties - Buchanan, Dickenson, and Rockingham. Pipeline was laid in the Haysi Field of Buchanan, the Nora Field of Dickenson, and the Bergton Field of Rockingham.

In Buchanan County, Columbia Gas Transmission Corporation completed construction on 10,925 feet of new line tying in two new wells to their production pipeline.

In Dickenson County, Berea Gathering Company completed construction on 27,976 feet of new line in the Nora Field tying in six new wells and four acquired wells from Clinchfield Coal Company into the Kentucky-West Virginia Gas Company's pipeline system. W. E. Elliott laid approximately 2,000 feet of new line tying in one well to the Columbia Gas System.

In Rockingham County, Merrill Natural Resources, Inc. completed construction on 23,760 feet of new line tying in three new wells to Columbia Gas Transmission's pipeline system.

Many energy related items evolved during 1981. In legislation, the Geothermal Resources Act was enacted as well as the development of a comprehensive Oil and Gas Conservation Act. In the field of energy development, several DOE grants were let to several companies for the development of methane liquification of coal seams. In methane degasification, Island Creek Coal Company continued with the drilling of ten new vertical ventilation holes.

A very optimistic view was enhanced further during 1981 for oil and gas development within the Commonwealth by the dramatic increase in geophysical activity and continued leasing activity from as far west as Lee County to the coastal plains of the Commonwealth. Geophysical activity in the form of fibrosis was a common occurrence on the highways and byways of the Commonwealth. In the area of oil and gas leasing activity, leased acreage increased by 403,790 acres over that of 1980. Leasing expanded into the Piedmont and coastal plains section of the state.

In Wise County, Berea Gathering Company finished laying line to connect four new wells into the Kentucky-West Virginia Gas Company system.

PRODUCTION AND DRILLING ACTIVITY BY COUNTY

BUCHANAN COUNTY

TABLE 4

Company	Producing Wells	Volume Produced (Mcf)
Ashland Exploration, Inc.	40	492,761
Cabot Corporation	1	22,261
Columbia Gas Transmission Corporation	86	3,079,650
P & S Corporation	6	42,213
TOTALS	133	3,636,885

Columbia Gas produced 3,079,650 Mcf of gas from the county into its pipeline in 1981. The remaining 557,235 Mcf produced by Ashland, Cabot, and P & S in the county were delivered to the line of Consolidated Gas Supply Corporation.

Drilling activity in the county increased from 1980 with fourteen new wells drilled for a total footage of 70,434 feet. Of the fourteen development wells, eleven were completed as producers and three were dry holes. Columbia drilled eight development wells, which were all producers. Texas International drilled five new development wells, two of which were producers and 3 were dry holes. Cities Service drilled one new well which was a producer.

During 1981, two new wells were tied in.

DICKENSON COUNTY

A total of 3,842,898 Mcf of gas was produced from wells in Dickenson County during 1981.

TABLE 5

Company	Producing Wells	Volume Produced (Mcf)
Columbia Gas Transmission Corporation	31	945,621
W. E. Elliott	2	50,103
Philadelphia Oil Company	85	2,847,174
TOTALS	118	3,842,898

The 2,847,174 Mcf produced by Philadelphia Oil Company was delivered to Kentucky-West Virginia Gas Company. The remaining 995,724 Mcf produced by Columbia and W. E. Elliott were delivered to Columbia's pipeline system.

Drilling activity in the county increased by two from 1980 with nine new development wells drilled with a total footage of 44,315 feet. All nine development wells were drilled by Philadelphia Oil Company in its continuation of its Nora Field development program. Philadelphia tied 14 wells into its system while W. E. Elliott tied the No. 3 Well into Columbia's system.

LEE COUNTY

Production of crude oil in the Ben Hur and Rose Hill Fields of Lee County increased in 1981 with a total of 13,244 barrels produced from twelve wells. The following chart shows the production broken down by field and company.

TABLE 6

	ROSE HILL		BEN HUR		TOTAL	
Company	No. of Wells	Production	No. of Wells	Production	No. of Wells	Production
Longview Oil Company	1	354			1	354
Merrill Natural Resources, Inc.	5	1,338	1	175	6	1,513
Mountain Empire Gas & Oil Corp.			1	1,436	1	1,436
Pride Oil Company	1	3,232			1	3,232
Virginia Oil & Gas Exploration, Inc.			2	6,262	2	6,262
Witt Drilling Company	1	254			1	254
SUBTOTAL	8	5,178	4	7,873	12	13,051
						193*
TOTAL						13,244

*Spear Oil Company produced 193 barrels from four wells in the Rose Hill Field prior to selling the wells to Merrill Natural Resources.

During 1981, a total of four development wells were drilled in Lee County. Merrill Natural Resources, Inc. drilled two development wells with one completed as a producer and one as a dry hole. In Ben Hur, Virginia Oil and Gas Exploration, Inc. drilled two development wells completing both as producers.

ROCKINGHAM COUNTY

A total of 122,828 Mcf of gas was produced in Rockingham County during 1981 by two companies as shown below:

TABLE 7

Company	Producing Wells	Volume Produced (Mcf)
Merrill Natural Resources, Inc.	3	106,847
New Frontier Exploration, Inc.	2	15,981
TOTAL	5	122,828

All the gas produced was delivered to the Columbia Gas Transmission system. The drilling activity during 1981 amounted to one new Field Wildcat drilled by Amoco Production Company in the George Washington National Forest. This was abandoned as a dry hole and later plugged.

RUSSELL COUNTY

Natural gas production continued in Russell County during 1981 as 32,839 Mcf was produced from two wells owned by Clinchfield Coal Company and used at its McClure Mining complex for drying purposes.

TAZEWELL COUNTY

A total of 526,610 Mcf of gas was produced in Tazewell County during 1981 by two companies as shown below:

TABLE 8

Company	Producing Wells	Volume Produced (Mcf)
Columbia Gas Transmission Corporation	6	154,308
Consol-Ray Resources	14	372,302
TOTAL	20	526,610

WISE COUNTY

A total of 740,387 Mcf of gas was produced in Wise County during 1981 by two companies as shown below:

TABLE 9

Company	Producing Wells	Volume Produced (Mcf)
Penn-Virginia Resources	2	2,176
Philadelphia Oil Company	8	738,211
TOTAL	10	740,387

Penn-Virginia Resources produced 2,176 Mcf of gas from 2 wells for local use.

Philadelphia Oil Company added to its total producing wells by having four new wells into its system. These eight wells produced 738,211 Mcf which were delivered to the Kentucky-West Virginia pipeline system.

SUMMARY

Although 1981 became a banner year for oil and gas production as well as development and expansion, it should be noted that at the end of 1981 there were many wells in the process of being drilled that have not been included in this report. During 1981, 69 well permits were issued of which 17 were actually completed during 1981. Wise Oil and Gas Exploration has begun an extensive drilling program which began in late summer of 1981. American Natural Resources has begun a program also in Wise County. In the Richmond Basin, Merrill Natural Resources and Cornell Oil Company have begun programs to explore the Triassic Basin. Amoco, Arco and Columbia Gas began in late 1981 exploration activity in the geological Complex Eastern Overthrust.

Whereas, three years ago Virginia's oil and gas activity was confined to the Appalachian Basin, it now has expanded from one end of the State to the other. With this in mind, 1982 may present many discoveries which in the future propel the Commonwealth of Virginia into a major producing State of petroleum resources.

TABLE 10

VIRGINIA NATURAL GAS PRODUCTION - 1981

(Mcf)

Quarter	Buchanan County	Dickenson County	Rockingham County	Russell County	Tazewell County	Wise County	State Total
First	988,429	984,378	1,106	10,680	137,984	194,293	2,316,870
Second	1,022,494	996,138	28,922	3,638	139.385	195,829	2,386,406
Third	1,012,679	989,133	74,103	15,581	158,508	184,836	2,434,840
Fourth	613,283	873,249	18,697	2,940	90,733	165,429	1,764,331
TOTALS	3,636,885	3,842,898	122,828	32,839	526,610	740,387	8,902,447

TABLE 11

NATURAL GAS DELIVERY TO PIPELINES - 1981

(Mcf)

Quarter	Columbia Gas Transmission Corporation	Consolidated Gas Supply Corporation	Kentucky-West Virginia Gas Company	Total Gas to Pipelines
First	1,275,661	140,146	889,244	2,305,051
Second	1,309,017	143,643	930,108	2,382,768
Third	1,363,673	130,938	924,648	2,419,259
Fourth	776,461	142,508	841,385	1,760,354
TOTALS	4,724,812	557,235	3,585,385	8,867,432

Local use in Russell County	32,839
Local use in Wise County	2,176
	8,902,447

TABLE 12

ESTIMATED REMAINING NATURAL GAS RESERVES IN VIRGINIA

AS OF DECEMBER 31, 1981

County	Producing Wells		Shut-In Wells		Total Wells	Total State Remaining Reserves (Mcf)
	Number of Wells	Remaining Reserves (Mcf)	Number of Wells	Remaining Reserves (Mcf)		
Buchanan	133	25,760,638	32	6,883,934	165	32,644,572
Dickenson	118	69,554,795	23	5,986,370	141	75,541,165
Rockingham	4	1,125,460	2	500,000	6	1,725,460
Russell	2	350,000	0		2	350,000
Scott and Washington	0		6	1,550,000	6	1,550,000
Tazewell	20	5,236,425	0		20	5,236,425
Wise	10	5,157,428	16	3,280,000	26	8,437,426
TOTALS	287	107,184,746	79	18,200,304	366	125,485,048

TABLE 13

VIRGINIA CRUDE OIL PRODUCTION - 1981

(Barrels)

Quarter	Ben Hur Field (Lee County)	Rose Hill Field (Lee County)	Total State
First	656	1,275	1,931
Second	219	1,464	1,683
Third	358	1,554	1,912
Fourth	6,640	1,078	7,718
TOTALS	7,873	5,371	13,244

TABLE 14

FOOTAGE DRILLED - 1981

County	Development Footage	Exploratory Footage	Total Footage
Buchanan	70,434	0	70,434
Dickenson	44,315	0	44,315
Frederick	0	9,688	9,688
Lee	8,450	0	8,450
Rockingham	0	6,620	6,620
Scott	5,153	0	5,153
TOTALS	128,352	16,308	144,660

TABLE 15

ACREAGE UNDER LEASE FOR OIL AND GAS IN VIRGINIA

AS OF DECEMBER 31, 1981

Company	Undeveloped Acreage	Developed Acreage	Total Acreage
Adobe Oil and Gas	12,000		12,000
American Natural Resources	81,200		81,200
Amoco Production Company	554,805		554,805
Apaco Ltd.	337		337
Arco Oil and Gas	60,000		60,000
Bartlett & Associates	2,950		2,950
Ben Hur Oil & Gas	1,704	40	1,744
BowValley/Panther Creed Ltd.	500		500
Cabot Oil and Gas Corporation	559	300	859
Chevron U.S.A. Inc.	179,777		179,777
Cities Service Company	6,398		6,398
Columbia Gas Transmission Corporation	277,314	38,837	316,151
Consolidated Gas Supply	18,819		18,819
Crab Run Gas Company	45,951		45,951
Early Grove Gas Company	4,388		4,388
Elliott, W. E. Trustee	200	192	392
Exxon U. S. A.	275,000		275,000
Gulf Oil, Exploration & Production Company	300,774		300,774
Highlander Resources	66,832	300	67,132
Home Petroleum	97,000		97,000
Ketal Oil Producing Company	30,009		30,009
Louisiana Land & Exploration Company	35,528		35,528
Charles Maurer Oil Properties	36,365		36,365
Merrill Natural Resources, Inc.	100,000	320	100,320
Mountain Empire Gas & Oil Corporation	4,985	15	5,000
New Frontier Exploration Company	24,106	405	24,511
Penn-Virginia Resources	11,000		11,000
Pennzoil Company	400		400
Philadelphia Oil Company	191,039	36,817	227,856
Phillips Petroleum Company	184,334		184,334
Price Oil Company	9,250	41	9,291
P & S Corporation		1,708	1,708
OKMAR	2,308		2,308
Oxley Petroleum Corporation	3,558		3,558
R & B Petroleum Company	6,500		6,500
Royal Resources	67,442		67,442
Shell Oil Company	68,000		68,000
Southfork Enterprises	15,000		15,000
Sun Exploration Company	216,479		216,479
Texaco	8,870		8,870
Texas International Petroleum	27,480	11,520	39,000
Union Texas Petroleum Corporation	332,284		332,284
Virginia Oil & Gas Exploration, Inc.	4,940	60	5,000
TOTALS	3,366,385	90,555	3,456,940

Table 16

SUMMARY OF VIRGINIA DRILLING - 1981

County	Operator	Lease	Well Class	Well No.	Total Depth (Ft.)	Formation At T.D.	Producing Formation	Initial Openflow (Mcf/BOPD)	Final Openflow (Mcf/BOPD)
Buchanan	Texas International Petroleum Corp.	Georgia-Pacific	Development	I.C.#46	4,810	Devonian Shale			Dry
Buchanan	Texas International Petroleum Corp.	Georgia-Pacific	Development	I.C.#23	4,270	Devonian Shale			Dry
Buchanan	Texas International Petroleum Corp.	C. L. Ritter	Development	I.C.#27	4,352	Devonian Shale			Dry
Buchanan	Texas International Petroleum Corp.	Georgia-Pacific	Development	I.C.#21	4,226	Devonian Shale	Ravencliffe Big Lime	1,774	1,704
Buchanan	Texa International Petroleum Corp.	Georgia-Pacific	Development	I.C.#2	4,670	Devonian Shale	Big Lime	Show	227
Buchanan	Cities Services Company	Georgia-Pacific	Development	"A"-1	5,202	Coniferous Lime	Devonian Shale	146	381
Buchanan	Columbia Gas Transmission Corporation	J. S. Richardson	Development	20040	5,765	Marcellus Shale	Big Lime Devonian Shale	31	95
Buchanan	Columbia Gas Transmission Corporation	Opal C. Thomas	Development	20224	3,872	Devonian Shale	Devonian Shale	94	1,356
Buchanan	Columbia Gas Transmission Corporation	J. S. Richardson	Development	20646	5,617	Marcellus Shale	Injun	Show	1,476
Buchanan	Columbia Gas Transmission Corporation	Buchanan Energy	Development	20723	5,798	Devonian Shale	Maxon) Big Lime) Devonian Shale	94 Show	94 211
Buchanan	Columbia Gas Transmission Corporation	W. M. Richardson	Development	20637	5,711	Corniferous Lime	Devonian Shale	Show	223
Buchanan	Columbia Gas Transmission Corporation	New Era Coal Co.	Development	20038	5,650	Devonian Shale	Devonian Shale	45	211

COAL FACTS, 1981

Another record breaking production year occurred in 1981 as a new peak of 41,977,807 tons of coal, up 2.4 percent from 1980, was mined despite the 72-day UMWA work stoppage.

Production moved ahead in five of the seven coal producing counties. Top production honors went to Buchanan county with 18.8 million tons for 44.7 percent of total output; runnerup, Wise county added 12.4 million tons for 29.5 percent of total output. The remaining slack was taken up by Dickenson, 6.1 million tons; Tazewell, 1.8 million tons; Russell, 1.6 million tons; Lee, 1.2 million tons; and Scott county with 0.02 million tons. Production in Tazewell and Wise counties dropped 15.4 and 1.2 percent respectively.

Truck mines continue to be the largest producers of coal with 22.6 million tons to their credit - a 53.9 percent share of total output. Tipple mines loaded 10.9 million tons for a 25.9 percent share, as both statistics were down from last year. Strip mines also captured a lower percentage at 19.0 percent along with less output at 8.0 million tons, while auger production increased to 0.5 million tons for a 1.2 percent share.

During 1980 there were 881 mines operating with 14,238 production workers, consisting of 3,153 surface and 11,085 underground employees, who were paid $343.3 million. The office force numbered 572 with a payroll of $9.6 million. Capital expenditures rose by 27.0 percent to $119,249,626.

Not suprisingly, the average days worked dropped to 137. There was an unfortunate increase in fatalities which totaled 16 and yielded a fatality rate of 0.38 fatalities per million tons of coal mined. Total injuries amounted to 1,004 with 38,706 lost workdays, resulting in a frequency rate of 36.7 accidents and a severity rate for nonfatal cases of 1,414 days per million man-hours of exposure. An incidence rate of 7.3 per 100 full-time workers resulted from 1981's reported cases. Despite the increase in fatalities, the frequency and severity of injuries declined as workers clocked fewer hours.

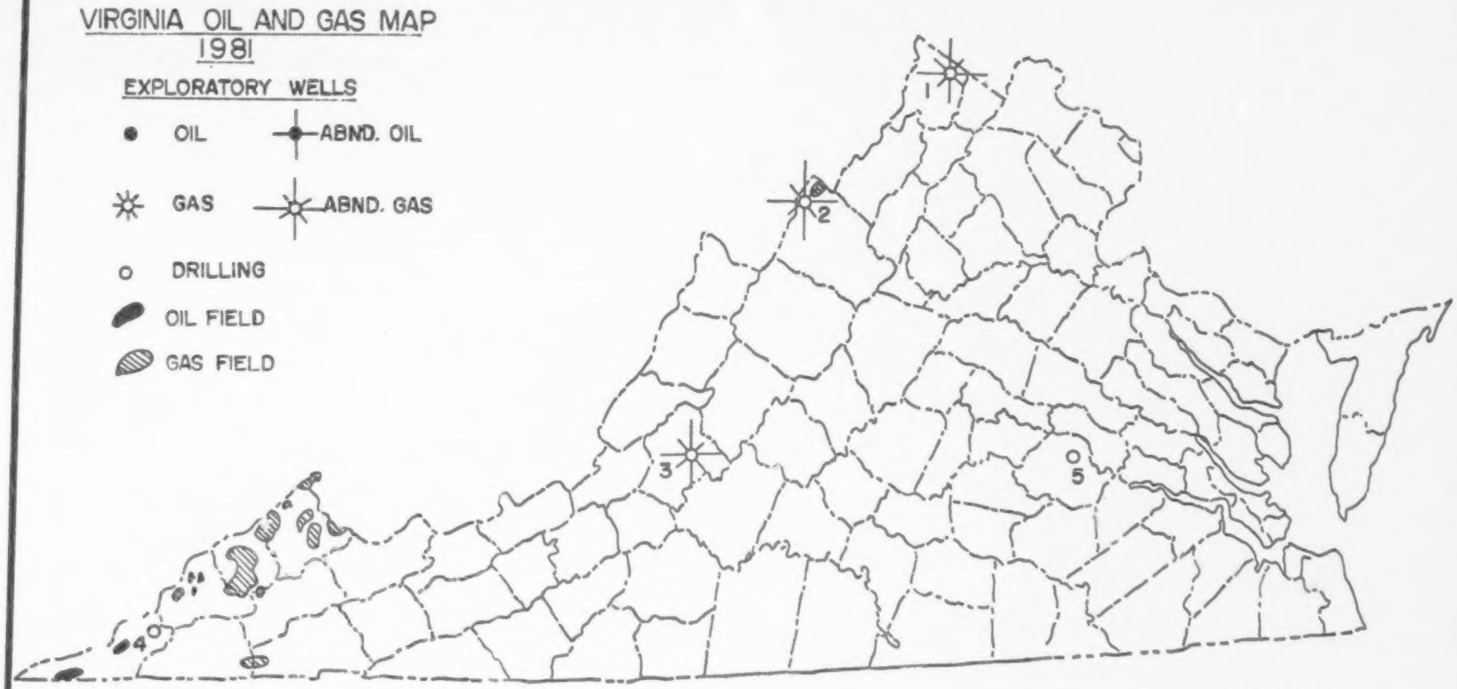
METAL MINING AND QUARRYING

Production at Virginia's 292 metal and nonmetal mines and quarries fell off sharply during 1981 by 12.1 million tons or 18.5 percent. Once again, nine of 12 categories tallied less output as gypsum; talc, soapstone, and pryophyllite; and miscellaneous nonmetallic minerals, not elsewhere classified were the only catergories showing increased production. Statistics show the most notable tonnage gain to be 95,230 tons by miscellaneous nonmetallic minerals while talc, soapstone, and pyrophillite recorded the greatest percentage increase, up 41.3 percent. On the other hand, crushed and broken limestone dropped 3,379,567 tons from last year with crushed and broken stone, not elsewhere classified showing a 40.0 percent decrease.

Safety improved on all accounts in 1981 as 66 total cases were reported with 793 days lost, and only one fatality. The injury frequency rate stood at 8.4 injuries and severity rate at 101.9 days per million manhours of exposure. For 1981, an incidence rate of 1.7 per 100 full-time workers was computed.

Christopher E. Loftus

Buchanan	Columbia Gas Transmission Corporation	Pittston	Development	20227	4,877	Devonian Shale	Berea	94	1,237
Buchanan	Columbia Gas Transmission Coporation	W. M. Richardson	Development	20658	5,614	Devonian Shale	Devonian Shale	158	179
Dickenson	Philadelphia Oil Co.	Pittston	Development	P-126	4,709	Devonian Shale	Big Lime Berea	Show	84 400
Dickenson	Philadelphia Oil Co.	Pittston	Development	P-129	4,675	Devonian Shale	Berea	Show	696
Dickenson	Philadelphia Oil Co.	Pittston	Development	P-128	4,590	Devonian Shale	Berea	Show	2,144
Dickenson	Philadelphia Oil Co.	Pittston	Development	P-127	4,739	Devonian Shale	Big Lime Berea	155	237 311
Dickenson	Philadelphia Oil Co.	Virginia Iron, Coke & Coal	Development	P-112	6,074	Devonian Shale	Big Lime Berea	Show	133 215
Dickenson	Philadelphia Oil Co.	Pittston	Development	P-106	4,876	Devonian Shale	Berea	0	462
Dickenson	Philadelphia Oil Co.	Steinman Development Co.	Development	P-120	4,486	Devonian Shale	Berea	1,240	1,958
Dickenson	Philadelphia Oil Co.	Steinman Development Co.	Development	P-121	4,416	Devonian Shale	Ravencliffe Berea	620	1,073 164
Dickenson	Philadelphia Oil Co.	Pittston	Development	P-130	5,750	Corniferous	Berea Devonian Shale	26	223
Frederick	Amoco Production Co.	Flossie B. Holliday	New Field Wildcat	Holliday No. 1	9,688	Tuscarora			Dry
Lee	Virginia Oil & Gas Exploration Inc.	Leslie Terry	Development	VO-3	1,810	Trenton	Trenton	144 BOPD	5 BOPD
Lee	Virginia Oil & Gas Exploration Inc.	Ralph Howard	Development	VO-4	2,240	Trenton	Trenton	500 BOPD	15 BOPD
Lee	Merrill Natural Resources, Inc.	Wayne Burgin	Development	#2-MNR	1,975	Eggleston			Dry
Lee	Merrill Natural Resources, Inc.	Josh Dean	Development	#1-MNR	2,425	Moccasin	Trenton	3 BOPD	3 BOPD
Rockingham	Amoco Production Co.	USA Lease 339224	New Field Wildcat	#2 Dry River Unit	6,620	Juniata			Dry
Scott	Highlander Resources, Inc.	Urchel Sourbeer	Development	HR2T	5,153	Devonian Shale	Maccrady	4,600	4,600


VIRGINIA OIL AND GAS MAP
1981
EXPLORATORY WELLS
● OIL
ABND. OIL
GAS
ABND. GAS
○ DRILLING
OIL FIELD
GAS FIELD
1
2
3
4
5

1/ Frederick
   Amoco Production Company, NFW Holliday #1
2/ Rockingham County
   Amoco Production Company, NFW Dry River
3/ Botetourt County
   Columbia Gas Transmission Corporation, NFW 20750T
4/ Lee County
   Arco Oil and Gas Company,/Campbell-Slemp #1 NFW
5/ Chesterfield County
   Merrill Natural Resources , NFW, Adamson #1

SUMMARY OF UNDERGROUND COAL MINING BY TITLE*

1981

TYPE AND TITLE	TOTAL	TYPE AND TITLE	TOTAL
Tonnage (Underground Mines)	33,491,908	Production Workers	12,469
Title I	10,826,420	Surface	1,384
Tipple	127,358	Title I	384
Truck	10,699,062	Tipple	15
Title II	22,665,488	Truck	369
Tipple	10,742,342	Title II	1,000
Truck	11,923,146	Tipple	594
		Truck	406
Tons Mined By:			
Machine	12,396,420	Underground	11,085
Title I	7,512,027	Title I	2,507
Tipple	119,354	Tipple	29
Truck	7,392,673	Truck	2,478
Title II	4,884,393	Title II	8,578
Tipple	275,398	Tipple	5,367
Truck	4,608,995	Truck	3,211
Continuous Miner	19,439,174	Wages Paid Production Workers	$302,126,581
Title I	3,291,742	Title I	64,533,602
Tipple	8,004	Tipple	933,684
Truck	3,283,738	Truck	63,599,918
Title II	16,147,432	Title II	237,592,979
Tipple	8,833,281	Tipple	150,115,689
Truck	7,314,151	Truck	87,477,290
Hand	22,651	Number of Mines	566
Title I	22,651	Title I	393
Truck	22,651	Tipple	5
		Truck	388
Longwall	1,633,663	Title II	173
Title II	1,633,663	Tipple	51
Tipple	1,633,663	Truck	122

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* Title I Mines averaging underground employment of 14 or less.
Title II Mines averaging underground employment of 15 or more.

SUMMARY OF COAL MINING IN VIRGINIA

1981

	Buchanan	Dickenson	Lee	Russell	Scott	Tazewell	Wise	Total
Tonnage	18,781,939	6,101,836	1,212,572	1,620,613	10,609	1,853,298	12,396,940	41,977,807
Tipple	4,765,708	1,787,122	398,589	745,938	-	870,795	2,301,548	10,869,700
Strip	1,295,797	1,013,830	151,345	394,950	-	149,347	4,981,472	7,986,741
Truck	12,642,181	3,288,604	566,809	472,967	10,609	831,772	4,809,266	22,622,208
Auger	78,253	12,280	95,829	6,758	-	1,385	304,654	499,158
Tons Mined By:								
Machine	9,663,831	2,937,247	455,124	852,092	10,609	447,896	6,515,520	20,882,319
Tipple	286,502	-	-	-	-	-	108,250	394,752
Strip	1,295,797	1,013,830	151,345	394,950	-	149,347	4,981,472	7,986,741
Truck	8,003,279	1,911,137	207,950	450,384	10,609	297,165	1,121,144	12,001,668
Auger	78,253	12,280	95,829	6,758	-	1,384	304,654	499,158
Continuous Miner	7,484,377	3,164,589	757,448	745,938	-	1,405,402	5,881,420	19,439,174
Tipple	2,845,543	1,787,122	398,589	745,938	-	870,795	2,193,298	8,841,285
Truck	4,638,834	1,377,467	358,859	-	-	534,607	3,688,122	10,597,889
Hand	68	-	-	22,583	-	-	-	22,651
Truck	68	-	-	22,583	-	-	-	22,651
Longwall	1,633,663	-	-	-	-	-	-	1,633,663
Tipple	1,633,663	-	-	-	-	-	-	1,633,663
Office Workers	215	75	26	37	1	27	191	572
Tipple	48	15	7	6	-	6	33	115
Strip	29	18	3	15	-	6	108	179
Truck	138	41	14	15	1	15	46	270
Auger	-	1	2	1	-	-	4	8
Salaries Paid Office Workers	$2,540,088	$1,075,181	$425,859	$613,203	$4,500	$684,658	$4,254,650	$9,598,139
Tipple	927,954	458,500	130,201	182,000	-	290,264	470,782	2,459,701
Strip	284,952	178,016	2,886	293,188	-	176,799	2,101,690	3,037,531
Truck	1,327,182	438,540	264,844	137,815	4,500	217,595	1,645,138	4,035,614
Auger	-	125	27,928	200	-	-	37,040	65,293

SUMMARY OF COAL MINING IN VIRGINIA (continued)

1981

	Buchanan	Dickenson	Lee	Russell	Scott	Tazewell	Wise	Total
Production Workers	6,712	1,984	445	605	9	705	3,778	14,238
Surface	1,213	327	118	131	1	71	1,292	3,153
Tipple	371	52	12	11	-	14	149	609
Strip	354	162	60	97	-	36	957	1,666
Truck	464	110	29	22	1	20	129	775
Auger	24	3	17	1	-	1	57	103
Underground	5,499	1,657	327	474	8	634	2,486	11,085
Tipple	2,445	759	152	336	-	390	1,314	5,396
Truck	3,054	898	175	138	8	244	1,172	5,689
Wages Paid Production Workers	$154,542,505	$51,963,178	$10,629,605	$15,068,420	$74,800	$17,038,955	$93,963,144	$343,280,607
Tipple	66,198,757	22,328,843	5,048,135	9,948,654	-	9,771,272	37,753,712	151,049,373
Strip	9,610,020	4,056,999	1,099,735	2,194,459	-	1,075,960	21,472,273	39,509,446
Truck	78,417,257	25,535,366	4,345,734	2,889,727	74,800	6,170,752	33,643,572	151,077,208
Auger	316,471	41,970	136,001	35,580	-	20,971	1,093,587	1,644,580
Number of Mines	364	134	55	44	1	23	260	881
Tipple	19	12	2	4	-	3	16	56
Strip	34	40	23	14	-	4	146	261
Truck	296	78	17	24	1	15	79	510
Auger	15	4	13	2	-	1	19	54
Estimated Average Days Worked	152	131	109	123	135	158	126	137
Tipple	191	193	230	213	-	215	173	190
Strip	117	82	74	99	-	135	110	103
Truck	158	152	178	130	135	162	168	158
Auger	57	29	64	28	-	35	39	48
Tons of Coke Produced	532,593	-	-	-	-	-	-	532,593

Number of Injuries 1/	Number of Lost Workdays	Frequency Rate 2/	Severity Rate 3/	Number of Fatalities
1,004	38,706	36.7	1,414	16

1/ Fatal and nonfatal cases.

2/ Number of injuries per million man-hours of exposure.

3/ Number of lost workdays per million man-hours of exposure.

SUMMARY OF METAL MINING, MINING AND QUARRYING OF NONMETALLIC MINERALS, EXCEPT FUELS

1981

	Tonnage	Office Workers	Office Hours Worked	Salaries	Quarry and Metal Mine Employment	Plant Employment	Days Worked	Total Man-Hours	Wages	Capital Expenditures
Lead and Zinc Ores	20,685	35	73,639	$ 746,971	108	46	234	287,050	$ 2,878,879	0
Dimension Stone	1,186,077	28	52,363	560,342	50	101	1,357	314,485	1,874,480	961,126
Crushed and Broken Limestone	17,191,068	293	563,676	5,397,876	595	824	14,773	2,814,282	19,387,278	4,335,229
Crushed and Broken Granite	15,911,516	110	256,314	2,387,721	253	390	6,953	1,406,459	9,444,457	6,287,379
Crushed and Broken Stone, nec	4,794,667	64	132,408	1,756,281	132	181	3,200	572,559	4,427,844	1,380,658
Construction Sand and Gravel	11,212,527	100	163,925	1,508,023	256	203	14,432	834,552	5,637,410	1,571,696
Industrial Sand	160,949	4	9,139	45,644	3	13	719	25,319	138,417	622,248
Clay and Related Minerals	1,136,593	78	153,898	1,646,122	54	594	3,965	1,211,383	5,249,713	1,212,166
Mineral Mining, nec	1,880	5	9,673	73,663	4	21	248	47,810	272,762	0
Gypsum	367,831	3	6,240	60,142	37	0	298	87,947	493,356	0
Talc, Soapstone, & Pyrophyllite	17,393	7	11,400	93,333	28	54	585	157,770	625,408	0
Miscellaneous Nonmetallic Minerals, nec	998,222	11	14,619	121,912	22	16	1,327	69,635	541,162	224,141
TOTAL	52,999,408	738	1,452,294	14,398,030	1,542	2,443	48,097	7,829,254	50,974,166	16,594,643

NOTE: nec - Not elsewhere classified.

METAL MINING AND QUARRYING INJURY EXPERIENCE

1981

	Number Injuries 1/	Days Lost	Number Fatalities	Frequency Rate 2/	Severity Rate 3/
Lead and Zinc Ores	15	81	0	52.2	282.2
Dimension Stone	0	0	0	0	0
Crushed and Broken Limestone	32	437	1	11.4	155.3
Crushed and Broken Granite	2	23	0	1.4	16.4
Crushed and Broken Stone, nec	4	194	0	7.0	338.8
Construction Sand and Gravel	1	2	0	1.2	2.4
Clay and Related Minerals	12	61	0	9.9	50.4
TOTAL	66	798	1	8.4	101.9

1/ Includes fatalities.

2/ Number of injuries per million man-hours of exposure.

3/ Number of days lost per million man-hours of exposure.

NOTE: nec - Not elsewhere classified.

FATAL ACCIDENTS IN COAL MINES, VIRGINIA

1981

TOTAL	16
Age:	
20 to 30	8
31 to 40	3
41 to 50	5
Family Status:	
Married	14
Single	2
Total Years Mining Experience:	
Up to one year	2
One year to ten years	7
Ten years and over	7
Experience with Present Company:	
Less than one month and not more then three months	3
Three months to two years	4
Two years to five years	3
Five years to fifteen years	5
More than 15 years	1
Time of Accident:	
Morning	9
Afternoon	5
Night	2
Cause:	
Electrocution	2
Explosion	1
Roof Fall	6
Haulage	3
Heavy Equipment	1
Other	3
Occupation:	
Belt head attendant	1
Car Dropper	1
Continuous miner operator	1
Continuous miner operator - helper	2
Electrician	1
Foreman	1
Front end loader	1
Hauler operator	1
Maintainence foreman	1
Roof bolter	3
Roof bolter - helper	1
Scoop operator	1
Tractor trailer operator	1

PRODUCTION AND FATALITIES IN THE COAL MINES, VIRGINIA

1953 - 1981

Year	Fatal Accidents	Production (Short Tons)	Fatality Rate Per Million Tons
1953	31	18,762,503	1.65
1954	23	15,187,142	1.51
1955	33	21,849,115	1.51
1956	35	26,004,732	1.34
1957	37	26,528,081	1.39
1958	30	25,030,954	1.20
1959	22	28,223,508	0.78
1960	22	26,706,285	0.82
1961	30	28,156,370	1.07
1962	22	29,469,945	0.75
1963	25	30,389,798	0.82
1964	22	31,773,217	0.69
1965	25	34,063,404	0.73
1966	30	35,572,928	0.84
1967	24	36,415,214	0.66
1968	12	36,865,703	0.32
1969	15	35,651,536	0.42
1970	27	34,974,724	0.77
1971	15	30,624,954	0.49
1972	15	33,995,841	0.44
1973	18	33,869,387	0.53
1974	15	34,283,753	0.44
1975	9	35,505,780	0.25
1976	16	39,995,546	0.40
1977	13	37,513,131	0.35
1978	17	32,004,341	0.53
1979	16	37,038,148	0.43
1980	12	41,008,884	0.29
1981	16	41,977,907	0.38

COAL RESOURCES OF VIRGINIA 1/

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
BUCHANAN COUNTY				
Cedar Grove	27- 1	3.80	0.84	*
Lower Cedar Grove	27- 2	2.27	0.82	*
Campbell Creek	27- 3	49.75	48.35	.66- .80
Clintwood	27- 4	92.78	61.59	.85-1.10
Eagle	27- 5	215.70	191.00	1.10-1.80
Blair	27- 6	61.68	29.41	.84-1.34
Dorchester	27- 7	105.33	93.28	.90-1.40
Hagy	27- 8	303.77	264.22	1.00-3.00
Splashdam	27- 9	708.50	646.02	.67- .83
Upper Banner	27-10	5.83	0.57	.52- .95
Lower Banner	27-11	286.43	280.10	.79- .90
Big Fork	27-12	9.53	9.46	.94-1.00
Kennedy	27-13	771.95	727.97	.96-1.10
Aily	27-14	42.29	41.83	.94-1.10
Raven	27-15	575.69	509.76	2.10-2.50
Jawbone	27-16	336.93	322.95	.47- .85
Tiller	27-17	77.44	66.54	.44- .67
Lower Seaboard	27-18	7.65	7.55	1.30-1.80
War Creek	27-19	2.96	2.89	*
Pocahontas #3	27-20	113.94	65.85	.40- .80
TOTAL		3,774.22	3,371.00	
DICKENSON COUNTY				
Kelly	51- 1	4.69	0.00	.89-1.02
Imboden	51- 2	4.38	1.83	.64-1.00
Clintwood	51- 3	79.04	65.68	.85-1.12
Eagle	51- 4	18.80	13.94	1.45-1.49
Blair	51- 5	14.39	13.16	.84-1.34
Lyons	51- 6	9.04	8.74	.70-2.90
Dorchester	51- 7	94.42	92.30	.87-1.49
Norton	51- 8	1.51	1.18	*
Hagy	51- 9	51.54	50.62	1.00-3.00
Splashdam	51-10	322.47	301.01	.76- .87
Upper Banner	51-11	325.43	286.19	.51- .95
Lower Banner	51-12	339.90	317.66	.65- .92
Kennedy	51-13	434.25	433.53	.70-1.98
Aily	51-14	8.26	8.25	.94-1.10
Raven	51-15	393.37	391.23	2.18-2.54
Jawbone	51-16	475.47	473.00	.71-2.12
Tiller	51-17	94.45	4.85	.44- .59
TOTAL		2,671.41	2,463.17	

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
LEE COUNTY				
High Splint	105- 1	0.84	0.00	.67-1.41
Morris	105- 2	2.77	2.49	*
Pardee	105- 3	2.31	2.07	.75-1.51
Wax	105- 4	2.46	2.09	.76- .85
Gin Creek	105- 5	1.63	1.59	*
Phillips	105- 6	13.17	9.56	.72- .91
Low Splint	105- 7	21.41	20.12	1.02-1.23
Taggart	105- 8	46.59	37.89	.34-1.01
Taggart Marker	105- 9	32.89	28.47	.61- .79
Kirk	105-10	1.76	1.01	*
Harlan	105-11	117.67	111.73	.61-3.20
Upper St. Charles	105-12	6.68	6.53	*
Lower St. Charles	105-13	33.63	32.24	2.06-2.25
Pinhook	105.14	9.13	9.13	*
Kelly	105-15	15.98	15.95	.77- .98
Stone Creek	105-16	0.63	0.63	1.92-2.08
Imboden	105-17	55.48	53.78	.70- .96
Clintwood	105-18	84.66	84.35	1.69-1.79
Blair	105-19	9.24	9.14	.85-1.34
Lyons	105-20	5.77	5.73	*
Dorchester	105-21	2.01	1.56	.79-2.90
TOTAL		466.71	436.06	
RUSSELL COUNTY				
Dorchester	167- 1	0.08	0.04	.90-1.40
Splashdam	167- 2	8.58	8.19	.67- .83
Upper Banner	167- 3	16.00	11.72	.52- .95
Lower Banner	167- 4	45.87	42.06	.79- .90
Big Fork	167- 5	4.80	3.04	.94-1.10
Kennedy	167- 6	128.09	125.24	.96-1.10
Raven	167- 7	98.84	96.45	2.10-2.50
Jawbone	167- 8	249.47	240.26	.47- .85
Tiller	167- 9	154.56	127.78	.44- .67
Burton's Ford	167-10	13.01	12.96	.99-1.43
TOTAL		719.30	667.74	

COAL RESOURCES OF VIRGINIA 1/

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
SCOTT COUNTY				
Jawbone	169- 1	0.48	0.48	.71-2.12
Cove Creek	169- 2	2.46	2.24	.85-1.80
Eagan	169- 3	7.32	7.24	.85- .94
Carter	169- 4	0.22	0.22	*
Tacus	169- 5	7.09	7.09	*
Starnes	169- 6	4.71	4.71	*
Burton's Ford	169- 7	82.29	82.27	.99-1.43
TOTAL		104.57	104.25	
TAZEWELL COUNTY				
Lower Banner	185- 1	0.34	0.32	.65- .92
Big Fork	185- 2	0.99	0.99	.94-1.10
Caldwell	185- 3	4.87	4.83	*
Kennedy	185- 4	9.24	8.78	0-1.98
Aily	185- 5	1.90	1.90	.94-1.10
Raven	185- 6	33.40	30.15	.57- .81
Jawbone	185- 7	73.74	72.32	.47- .85
Tiller	185- 8	44.73	42.31	.53- .67
Upper Seaboard	185- 9	35.52	34.61	.50- .71
Greasy Creek	185-10	12.86	12.84	*
Middle Seaboard	185-11	22.07	21.40	*
Lower Seaboard	185-12	74.38	66.81	1.10-1.70
Upper Horsepen	185-13	57.06	52.57	*
Middle Horsepen	185-14	32.86	30.66	*
"C"	185-15	18.11	18.00	*
War Creek	185-16	80.37	80.33	*
Lower Horsepen	187-17	21.40	20.79	*
Pocahontas #8	185-18	0.35	0.16	.35- .91
Pocahontas #7	185-19	7.11	7.02	*
Pocahontas #6	185-20	11.65	11.43	*
Pocahontas #5	185-21	42.20	40.49	*
Pocahontas #4	185-22	38.85	38.29	.35- .91
Pocahontas #3	185-23	84.36	83.68	.34- .68
TOTAL		708.36	680.68	

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
WISE COUNTY				
High Splint	195- 1	28.15	19.75	.67-1.28
Morris	195- 2	28.74	26.11	*
Pardee	195- 3	74.19	62.30	.78-1.60
Phillips	195- 4	11.88	10.16	.72- .91
Low Splint	195- 5	99.59	95.33	1.02-1.23
Taggart	195- 6	121.29	81.17	.50- .65
Taggart Marker	195- 7	85.79	78.20	.75- .79
Upper Standiford	195- 8	70.34	64.83	*
Pinhook	195- 9	3.87	3.28	*
Kelly	195-10	149.17	130.00	.89-1.02
Imboden	195-11	186.38	141.43	.64-1.00
Rocky Ford	195-12	0.24	0.23	.75- .83
Addington	195-13	4.36	4.28	*
Clintwood	195-14	167.39	149.52	.85-1.10
Blair	195-15	157.02	146.36	.84-1.34
Lyons	195-16	132.34	125.84	.84-1.34
Dorchester	195-17	193.97	175.84	.79-2.93
Norton	195-18	170.19	160.68	1.36-1.63
Hagy	195-19	9.08	8.94	1.00-3.00
Splashdam	195-20	11.36	8.56	.76- .87
Upper Banner	195-21	94.10	82.61	.52- .73
Lower Banner	195-22	116.78	113.30	.83- .90
Kennedy	195-23	112.85	112.39	.83- .94
Raven	195-24	130.71	129.66	2.18-2.54
Jawbone	195-25	157.40	147.92	.71-2.12
Tiller	195-26	5.29	5.11	.85-1.80
Cove Creek	195-27	0.19	0.19	.85- .94
Burton's Ford	195-28	8.42	8.34	.99-1.43
Eagan	195-29	6.32	6.32	*
Starnes	195-30	2.71	2.70	*
Tacus	195-31	5.49	5.49	*
TOTAL		2,345.60	2,106.84	

1/ Reserves as of 1/1/51 were taken from Coal Resources of Virginia Geological Survey Circular 171.

2/ Reserves shown in this report include coal beds from fourteen inches to more than forty-two inches in thickness.

3/ In millions of short tons.

* This seam has not been mined extensively enough to justify an analysis.